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WHAT a very little fact sometimes betrays the national character; and what an odd thing this national character is. Look at a Frenchman. He eats, talks, lives in public. He is only happy when he has spectators. In town, on the boulevards, in the *café*, at places of public amusement, he is all enjoyment. But in the country—ah, there he never goes willingly; or else, he only goes to sentimentalize, or to entertain his town friends. Even the natural born country people seem to find nature and solitude *ennuyant*, and so collect in little villages to keep each other in spirits! The Frenchman eats and sleeps almost anywhere; but he is never "at home but when he is abroad."

Look, on the other hand, at John Bull. He only lives what he feels to be a rational life, when he lives in the country. His country place is to him a little Juan Fernandez island; it contains his own family, his own castle, everything that belongs to him. He hates the smoke of town; he takes root in the soil. His horses, his dogs, his trees, are not separate existences; they are parts of himself. He is social with a reservation. Nature is nearer akin to him than strange men. His dogs are truly attached to him; he doubts if his fellows are. People often play the hypocrite; but the trees in his park never deceive him. Home is to him the next best place to heaven.

And only a little narrow strait of water divides these two nations!

Shall *we* ever have a distinct national character? Will a country, which is settled by every people of the old world,—a dozen nations, all as distinct as the French and the English,—ever crystallize into a symmetrical form—something distinct and homogeneous? And what will that national character be?

Certainly; no one who looks at our comparative isolation—at the broad ocean that separates us from such external influences—at the mighty internal forces of new government and new circumstances, which continually act upon us,—and, above all, at the mighty vital force of the Yankee constitution, which every year swallows hundreds of thousands of foreigners, and *digests* them all; no one can look reflectingly on all this, and not see that there is a national type, which will prevail over all the complexity, which various origin, foreign manners, and different religions bring to our shores.

The English are, perhaps, the most dis-

tinct of civilized nations, in their nationality. But they had almost as mixed an origin as ourselves,—Anglo-Saxon, Celts, Roman, Danish, Norman; all these apparently discordant elements, were fused so successfully into a great and united people.

That a hundred years hence will find us quite as distinct and quite as developed, in our national character, we cannot doubt. What that character will be, in all its phases, no one at present can precisely say; but that the French and the English elements will largely influence it in its growth, and yet, that in morals, in feeling, and in heart, we shall be entirely distinct from either of those nations, is as clear to us as a summer noon.

We are not going into a profound philosophical dissertation on the political or the social side of national character. We want to touch very slightly on a curious little point that interests us; one that political philosophers would think quite beneath them; one that moralists would not trouble themselves about; and one that we are very much afraid nobody else will think worth notice at all; and therefore we shall set about it directly.

What is the reason American ladies dont love to work in their gardens?

It is of no use whatever, that some fifty or a hundred of our fair readers say, "we do." We have carefully studied the matter, until it has become a fact past all contradiction. They may love to "potter" a little. Three or four times in the spring they take a fancy to examine the colour of the soil a few inches below the surface; they sow some China Asters, and plant a few Dahlias, and it is all over. Love flowers, with all their hearts, they certainly do. Few things are more enchanting to them than a fine garden; and *bouquets on their centre tables* are positive necessities, with every lady, from Maine to the Rio Grande.

Now, we certainly have all the *love of nature* of our English forefathers. We love the country; and a large part of the millions, earned every year by our enterprise, is spent in creating and embellishing country homes. But, on the contrary, our wives and daughters only love gardens as the French love them — for the results. They love to walk through them; they enjoy the beauty and perfume of their products, but only as amateurs. They know no more of that intense enjoyment of her who plans, creates, and daily watches the growth of those gardens or flowers,— no more of that absolute, living enjoyment, which the English have in out-of-door pursuits, than a mere amateur, who goes through a fine gallery of pictures, knows of the intensified emotions which the painters of those pictures experienced in their souls, when they gazed on the gradual growth and perfected splendor of their finest master-pieces.

As it is plain, from our love of the country, that we are not French at heart, this manifestation that we complain of, must come from our natural tendency to copy the social manners of the most polished nation in the world. And it is indeed quite wonderful how, being scarcely in the least affected by the *morale*, we still borrow almost instinctively, and entirely without being aware of it, so much from *la Belle France*. That our dress, mode of life, and intercourse, is largely tinged with French taste, every traveller notices. But it goes farther. Even the plans of our houses become more and more decidedly French. We have had occasion, lately, to make considerable explorations in the domestic architecture of France and England, and we have noticed some striking

national peculiarities. One of these relates to the connection of the principal apartments. In a French house, the beau ideal is to have everything *en-suite;* all the rooms open into each other; or, at least, as many of the largest as will produce a fine effect. In an English house, every room is complete in itself. It may be very large, and very grand, but it is all the worse for being connected with any other room; for that destroys the privacy which an Englishman so much loves.

Does any one, familiar with the progress of building in the United States for the last ten years, desire to be told which mode we have followed? And yet, there are very few who are aware that our love of folding doors, and suites of apartments, is essentially French.

Now our national taste in gardening and out door employments, is just in the process of formation. Honestly and ardently believing that the loveliest and best women in the world are those of our own country, we cannot think of their losing so much of their own and nature's bloom, as only to enjoy their gardens by the *results*, like the French, rather than through the *development*, like the English. We would gladly show them how much they lose. We would convince them, that only to pluck the full blown flower, is like a first introduction to it, compared with the life-long friendship of its mistress, who has nursed it from its first two leaves; and that the real zest of our enjoyment of nature, even in a garden, lies in our looking at her, not like a spectator who admires, but like a dear and intimate friend, to whom, after long intimacy, she reveals sweets wholly hidden from those who only come to her in full dress, and in the attitude of formal visitors.

If any one wishes to know how completely and intensely English women enter into the spirit of gardening, he has only to watch the wife of the most humble artisan who settles in any of our cities. She not only has a pot of flowers — her back yard is a perfect curiosity-shop of botanical rarities. She is never done with training, and watering, and caring for them. And truly, they reward her well; for who ever saw such large Geraniums, such fresh Daisies, such ruddy Roses! Comparing them with the neglected and weak specimens in the garden of her neighbor, one might be tempted to believe that they had been magnetised by the charm of personal fondness of their mistress, into a life and beauty not common to other plants.

Mr. Colman, in his European Tour, seems to have been struck by this trait, and gave so capital a portrait of rural accomplishments in a lady of rank he had the good fortune to meet, that we cannot resist the temptation of turning the picture to the light once more:

——"I had no sooner, then, entered the house, where my visit had been expected, than I was met with an unaffected cordiality, which at once made me at home. In the midst of gilded halls, and hosts of liveried servants, of dazzling lamps and glittering mirrors, redoubling the highest triumphs of art and of taste; in the midst of books, and statues, and pictures, and all the elegancies and refinements of luxury; in the midst of titles, and dignitaries, and ranks allied to regal grandeur,—there was one object which transcended, and eclipsed them all, and showed how much the nobility of character surpassed the nobility of rank, the beauty of refined and simple manners all the adornments of art, the scintillations of the soul, beaming from the eyes, the purest gems that ever glittered in a princely diadem. In person, in education and improvement, in quickness of perception, in facility and elegance of expression, in accomplishments and taste, in a frankness and gentleness of manner, tempered by a modesty which courted confidence and inspired respect, and in a high moral tone

and sentiment, which, like a bright halo, seemed to encircle the whole person,—I confess the fictions of poetry became substantial, and the *beau ideal* of my youthful imagination was realized.

"In the morning I first met her at prayers; for, to the honor of England, there is scarcely a family, among the hundreds whose hospitality I have shared, where the duties of the day are not preceded by family worship; and the master and the servant, the parent and the child, the teacher and the taught, the friend and the stranger, come together to recognise and strengthen the sense of their common equality, in the presence of their common Father, and to acknowledge their equal dependence upon his care and mercy. She was then kind enough to tell me, after her morning's arrangements, she claimed me for the day. She first showed me her children, whom, like the Roman mother, she deemed her brightest jewels, and arranged their studies and occupations for the day. She then took me two or three miles on foot, to visit a sick neighbor; and, while performing this act of kindness, left me to visit some of the cottages upon the estate, whose inmates I found loud in the praises of her kindness and benefactions. Our next excursion was to see some of the finest, and largest, and most aged trees in the park, the size of which was truly magnificent; and I sympathised in the veneration which she expressed for them, which was like that with which one recalls the illustrious memory of a remote progenitor. Our next visit was to the green-houses and gardens; and she explained to me the mode adopted there, of managing the most delicate plants, and of cultivating, in the most economical and successful manner, the fruits of a warmer region. From the garden we proceeded to the cultivated fields; and she informed me of the system of husbandry pursued on the estate, the rotation of crops, the management and application of manures, the amount of seed sown, the ordinary yield, and the appropriation of the produce, with a perspicuous detail of the expenses and results. She then undertook to show me the yards and offices, the byres, the feeding stalls, the plans for saving, increasing and managing the manure; the cattle for feeding, for breeding, the milking stock, the piggery, the poultry-yard, the stables, the harness-rooms, the implement-rooms, the dairy. She explained to me the process of making the different kinds of cheese, and the general management of the milk, and the mode of feeding the stock; and then, conducting me into the bailiff's house, she exhibited to me the Farm Journal, and the whole systematic mode of keeping the accounts and making the returns, with which she seemed as familiar as if they were the acounts of her own wardrobe. This did not finish our grand tour; for, on my return, she admitted me into her boudoir, and showed me the secrets of her own admirable housewifery, in the exact accounts which she kept of everything connected with the dairy, the market, the table, and the drawing-room, and the servants' hall. All this was done with a simplicity and a frankness, which showed an absence of all consciousness of any extraordinary merit in her own department, and which evidently sprang solely from a kind desire to gratify a curiosity on my part, which, I hope, under such circumstances, was not unreasonable.

"A short hour after this brought us into another relation; for the dinner bell summoned us, and this same lady was found presiding over a brilliant circle of the highest rank and fashion, with an ease, elegance, wit, intelligence, and good humor, with a kind attention to every one's wants, and an unaffected concern for every one's comfort, which would lead one to suppose that this was her only and her peculiar sphere. Now I will not say how many mud-puddles we had waded through, and how many manure heaps we had crossed, and what places we had explored, and how every farming topic was discussed; but I will say that she pursued her object without any of that fastidiousness and affected delicacy, which pass with some persons for refinement, but which, in many cases, indicate a weak, if not a corrupt mind. * *

"Now I do not say that the lady to whom I have referred was herself the manager of the farm; that rested entirely with her husband; but I have intended simply to show how gratifying to him must have been the lively interest and sympathy which she

took in concerns which necessarily so much engaged his time and attention; and how the country would be divested of that dullness and *ennui*, so often complained of as inseparable from it, when a cordial and practical interest is taken in the concerns which belong to rural life. I meant also to show—and this and many other examples, which have come under my observation, emphatically do show—that an interest in, and familiarity with, even the most humble occupations of agricultural life, are not inconsistent with the highest refinements of taste, the most improved cultivation of the mind, and elegance, and dignity of manners, unsurpassed in the highest circles of society."

This picture is thoroughly English; and who do our readers suppose this lady was? Mr. COLMAN puts his fingers on his lips, and declares, that however much he may be questioned by his fair readers at home, he will make no disclosures. But other people recognise the portrait; and we understand it is that of the DUCHESS OF PORTLAND.

Now, as a contrast to this, here is a little fragment—a mere bit—but enough to show the French feeling about country life. It is from one of MADAME DE SEVIGNE'S charming letters; and, fond of society, as she was, she certainly had as much of love of the country as belongs to her class and sex on her side of rhe channel. It is part of a letter, written from her country home. She is writing to her daughter, and speaking of an expected visit from one of her friends:

"It follows that, after I have been to see her, she will come to see me, when, of course, I shall wish her to find my garden in good order; my walks in good order—those fine walks, of which you are so fond. Attend also, if you please, to a little suggestion *en passant*. You are aware that hay-making is going forward. Well, I have no hay-makers. I send into the neighboring fields to press them into my service; there are none to be found; and so all my own people are summoned to make hay instead. But do you know what hay-making is? I will tell you. *Hay-making is the prettiest thing in the world. You play at turning the grass over in a meadow; and as soon as you know that, you know how to make hay.*"

Is it not capital? We italicise her description of hay-making, it is so *Française*, and so totally unlike the account that the DUCHESS would have given Mr. COLMAN. Her garden, too; she wanted to have it *put in order before her friend arrived.* She would have shown it, not as an English woman would have done, to excite an interest in its rare and beautiful plants, and the perfection to which they had grown, under her care, but that it might give her friend a pleasant promenade.

Now we have not the least desire, that American wives and daughters should have anything to do with the *rough toil* of the farm or the garden, beyond their own household province. We delight in the chivalry which pervades this whole country, in regard to the female character, and which even foreigners have remarked as one of the strongest national characteristics.* But we would gladly have them seize on that happy medium, between the English passion for everything out of doors, and the French taste for nothing beyond the drawing-room. Everything which relates to the garden, the lawn, the pleasure-grounds, should claim their immediate interest. And this, not merely to walk out occasionally and enjoy it, but to know it by heart; to do it, or see it all done; to know the his-

* M. CHEVALIER, one of the most intelligent of recent French travellers, says, in his work on this country—"Not only does the American mechanic and farmer relieve, as much as possible, his wife from all severe labor, all disagreeable employments, but there is also, in relation to them, and to women in general, a disposition to oblige, that is unknown among us, even in men who pique themselves upon cultivation of mind and literary education." * * * *

"We buy our wives with our fortunes, or we sell ourselves to them for their dowries. The American chooses her, or rather he offers himself to her for her beauty, her intelligence, and the qualities of her heart; it is the only dowry which he seeks. Thus, while we make of that which is most sacred a matter of business, these traders affect a delicacy, and an elevation of sentiment, which would have done honor to the most perfect models of chivalry."

tory of any plant, shrub, or tree, from the time it was so small as to be invisible to all but their eyes, to the time when every passer by stops to admire and enjoy it; to live, in short, not only the in-door but the out-of-door life of a true woman in the country. Every lady may not be "born to love pigs and chickens," (though that is a good thing to be born to;) but, depend upon it, she has been cut off by her mother nature with less than a shilling's patrimony, if she does not love trees, flowers, gardens, and nature, as if they were all part of herself.

We half suspect, if the truth must be told, that there is a little affectation or coquetry among some of our fair readers, in this want of hearty interest in rural occupation. We have noticed that it is precisely those who have the smallest gardens, and, therefore, who ought most naturally to wish to take the greatest interest in their culture themselves,—it is precisely those who depend entirely upon their gardener. They rest with such entire faith on the chivalry of our sex, that they gladly permit everything to be done for them, and thus lose the greatest charm which their garden could give—that of a delightful personal intimacy.

Almost all the really enthusiastic and energetic lady gardeners, that we have the pleasure of knowing, belong to the wealthiest class in this country. We have a neighbor on the Hudson, for instance, whose pleasure-grounds cover many acres, whose flower-garden is a miracle of beauty, and who keeps six gardeners at work all the season. But there is never a tree transplanted that she does not see its roots carefully handled; not a walk laid out that she does not mark its curves; not a parterre arranged that she does not direct its colours and grouping, and even assist in planting it. No matter what guests enjoy her hospitality, several hours every day are thus spent in out-of-door employment; and from the zeal and enthusiasm with which she always talks of everything relating to her country life, we do not doubt that she is far more rationally happy now, than when she received the homage of a circle of admirers at one of the most brilliant of foreign courts.

On the table before us, lies a letter from a lady of fortune in Philadelphia, whose sincere and hearty enthusiasm in country life always delights us. She is one of those beings who animate everything she touches, and would make a heart beat in a granite rock, if it had not the stubbornness of all "facts before the flood." She is in a dilemma now about the precise uses of lime, (which has staggered many an old cultivator, by the way,) and tells the story of her doubts with an earnest directness and eloquence that one seeks for in vain in the essays of our male chemico-horticultural correspondents. We are quite sure that there will be a meaning in every fruit and flower which this lady plucks from the garden, of which our fair friends, who are the disciples of the SEVIGNE school, have not the feeblest conception.

There are also, we fear, those who fancy that there is something rustic, unfeminine and unrefined, about an interest in country out-of-door matters. Would we could present to them a picture which rises in our memory, at this moment, as the finest of all possible denials to such a theory. In the midst of the richest agricultural region of the northern states, lives a lady—a young, unmarried lady; mistress of herself; of some thousands of acres of the finest lands; and a mansion which is almost the *ideal* of taste and refinement. Very well. Does this lady sit in her drawing-room all day, to receive her visitors? By no

means. You will find her, in the morning, either on horseback or driving a light carriage with a pair of spirited horses. She explores every corner of the estate; she visits her tenants, examines the crops, projects improvements, directs repairs, and is thoroughly mistress of her whole demesne. Her mansion opens into the most exquisite garden of flowers and fruits, every one of which she knows by heart. And yet this lady, so energetic and spirited in her enjoyment and management in out-of-door matters, is, in the drawing-room, the most gentle, the most retiring, the most refined of her sex.

A word or two more, and upon what ought to be the most important argument of all. EXERCISE, FRESH AIR, HEALTH,—are they not almost synonymous? The exquisite bloom on the cheeks of American girls, fades, in the matron, much sooner here than in England,—not alone because of the softness of the English climate, as many suppose. It is because exercise, so necessary to the maintenance of health, is so little a matter of habit and education here, and so largely insisted upon in England; and it is because exercise, when taken here at all, is taken too often as a matter of duty; that it is then only a lifeless duty, and has no soul in it; while the English woman, who takes a living interest in her rural employments, inhales new life in every day's occupation, and plants perpetual roses in her cheeks, by the mere act of planting them in her garden.

"But, Mr. DOWNING, think of the hot sun in this country, and our complexions!"

Yes, yes, we know it. But get up an hour earlier, fair reader; put on your broadest sun-bonnet, and your stoutest pair of gloves, and try the problem of health, enjoyment and beauty, before the sun gets too ardent. A great deal may be done in this way; and after a while, if your heart is in the right place for ruralities, you will find the occupation so fascinating that you will gradually find yourself able to enjoy keenly what was at first only a very irksome sort of duty.

DESCRIPTIVE NOTICES OF FIFTY RARE OR NEW PEARS.

BY ROBERT MANNING, SALEM, MASS.

[WE have much pleasure in publishing the following notes, and in calling the attention of pomologists and amateurs to them. Mr. MANNING'S reputation as a pomologist is well deserved; for he unites enthusiastic zeal, excellent judgment, and sterling honesty,—qualities so rarely combined in *devotees* to any art; and he has the advantage of the experience of two generations. We have either tested in our own, or carefully noted in other gardens, many of the sorts he notices, and our opinion accords almost entirely with those expressed by him. ED.]

1. *Bergamotte Cadett.*—This pear has been cultivated for some years as Beurré Beauchamps; but that name not having been firmly established, it was thought best to substitute for it the one at the head of this notice, which is that adopted by the London Horticultural Society. I wish now to recommend a more extensive trial of it, as I do not think it has been as much cultivated as it deserves to be. It is rather under middle size; form roundish obovate; flavor very fine, sometimes excelling the Winter Nelis. Ripe the early part of winter. I do not notice the diversity in

the ripening of this sort, mentioned in the London Catalogue.

2. *Beurré Kenrick.*—I have now fruited this pear several years, and have had many specimens, some of which were very fine of their kind; but I do not think it entitled to be recommended for general cultivation. It ripens the first part of September.

3. *Beurré d'Angleterre.*—Very productive, but soon decays at the core.

4. *Beurré Adam.*—A new pear, not yet fully proved. It appears to resemble the *Bishop's Thumb.*

5. *Beurré of Bolwiller.*—A variety received from Dr. VAN MONS, which may fairly claim a place in the rejected list.

6. *Beurré Delbecq.*—The same remarks as were made on the last will apply to this.

Beurré Witzhumb proves identical with *Beurré Delbecq.*

7. *Bergamotte Parthenay.*—A winter fruit, lately imported from France; worthless as a dessert pear, and though good to cook, but being deficient in size, it is hardly worth cultivation for that purpose, while we have plenty of larger ones.

8. *Ambrosia* does not come up to the reputation given it in the books. It is not a melting, but a breaking pear, and does not ripen here before the first of September. It is commonly said to decay very soon; but I think it keeps full as long as most pears of its season. Tree of upright growth, making strong shoots, of a very dark, purplish colour, thickly marked with white dots.

9. *Alpha.*—To my taste, this is one of the finest pears. It is sweet, and exceedingly fine grained, melting and juicy. The tree is a great bearer; and although the fruit does not hold on very strongly, those which blow off open so as to be full as good, or even better than the others. And I may here remark, that many of the autumn pears are as much improved as the summer fruit, by being taken from the tree before fully ripe.

10. *Aston Town.*—A good grower, making smooth, vigorous shoots, of a light gray colour. Fruit rather small, with a long stem, and ripening the first of September, but so much inferior to many others of the same season as to be hardly worth growing.

11. *Beurré Van Marum.*—Hardly comes up to medium size, but is of very fine flavor. It appears to be allied to the Urbaniste. Ripe the first half of October. It is easily known, by the peculiar insertion of the stem in a small regular cavity. Stem long, slender and curved, with a little swelling at the bottom. Bears young and well, so that the shoots are soon thickly covered with fruit spurs. Leaves long, narrow, flat, and pointed at both ends.

12. *Henkel.*—Received from Dr. VAN MONS. It resembles the B. Van Marum in its early and abundant bearing, in shape and colour, in the length and curvature of the stem, and in its likeness to the Urbaniste; but differs in being larger, a month earlier, and the stem being stouter. It ripens the first part of September, and is among the best of its season.

13. *Burgomaster.*—The true variety is very distinct from the Vicar of Winkfield. Of medium size, long pyriform; skin pale, yellowish green, sprinkled with russet; flavor very poor. The wood cankers worse than that of any other variety, without exception. Altogether, one of the most worthless.

14. *Brandes St. Germain.*—I think this must have been among the first originated by Dr. VAN MONS; as it is stated in *Prince's Pomological Manual*, published in 1831, to have been raised seventeen or eighteen years previously. It was comprised in the first lot of scions received from VAN MONS;

but its great merits have remained unrecognised until quite lately. For several years past, it has proved one of the finest winter pears. Form oblong, pointed at the stem, which is always planted obliquely on one side; skin brownish yellow, often with much smooth russet; flesh rich and juicy, with a vinous flavor, resembling the St. Germain or Dix. Tree productive, and a tolerable grower. Foliage small and narrow, like the old St. Germain. It succeeds finely on the quince. Altogether, I think it a most desirable variety, especially when its season is taken into consideration; as we are deficient in good winter pears.

15. *Columbia.*—With me, this has proved rather unproductive, and very apt to blow off; and though large, fair and handsome, I cannot say much in praise of its flavor.

16. *Capucin*, (of VAN MONS.)—A very high flavored, juicy pear; skin of a dark brownish red; surface knobby.

17. *Caen du France.*—A rather singular looking, but handsome pear: form obovate, sometimes lengthened, and pointed at the stem; skin russeted, and thickly sprinkled with raised dots of darker russet, and often with a fine red cheek; medium size; flesh very fine, juicy and sweet; flavor resembling the Winter Nelis. Ripe in December and January. From Dr. VAN MONS.

18. *Coter.*—Another from Dr. VAN MONS, and a very fine one, among the first of those received from him; medium size; form regular obovate; skin pale green; flesh very fine grained, tender and melting, filled with a refreshing juice. Ripe in November; at which time there is none superior to it. The tree makes a round, compact head; young wood, short jointed, light yellow.

19. *Clara.*—Unworthy of cultivation.

20. *Cuvelier.*—Unworthy of cultivation.

21. *Doyenné Boussock.*—One of the most valuable additions to our list of fine new pears. It is a White Doyenné, on a much larger scale. Tree very vigorous; foliage large, thick and glossy. Last of September and first of October.

22. *Dundas.*—Exceedingly handsome, and pretty good; apt to blow down.

The *Parmentier* proves to be the same as Dundas.

23. *Easter Bergamot*—I do not think worth growing, either for dessert or kitchen use.

24. *Foster's St. Michael.*—Wood cankers badly, and the fruit is inferior to many others of its season,—the first part of September.

25. *Gilogil*—I have discontinued cultivating, on account of its unproductiveness.

26. *Gendeseim.*—Medium size, obovate, pale, greenish yellow, sprinkled with russet, melting, juicy, and of good flavor. A very strong grower on the quince. October.

27. *Flemish Bon Chretien.*—One of the best pears for cooking in the winter.

28. *Green Sugar.*—Unworthy of cultivation.

29. *Doyenné d'Hiver.*—This pear was a favorite with the late S. G. PERKINS, Esq., from whom it was received here. It is large, fair and productive; though not high flavored, it is sweet and juicy. I think it a desirable sort, particularly for market. It is the same as "Coffin's Virgalieu," which was received from France with the name lost, and thus designated from the name of the importer, and its resemblance to the White Doyenné or Virgalieu. Ripe early in winter.

30. *Wilbur.*—Medium size, obovate; skin of a dull yellowish colour, sometimes almost covered with russet; flavor often de-

cidedly first rate. A native pear, productive and hardy. Ripe in September.

31. *Limon.*—For one who loves a pear, full of rich, *sprightly* juice, there is nothing superior to the Limon, among the summer fruits.

32. *Elizabeth*, (*Manning's.*)—This very fine summer pear is one of the best growers on the quince. It bears young and well.

33. *Duchess of Orleans.*—One of the most perfect of pears. Tree vigorous,—making light yellow shoots, an early and abundant bearer; fruit very handsome, and of delicious flavor. It fruited here in 1845, for the first time in this country. Some of the specimens then produced were the finest pears I have ever tasted. Grows well on the quince. Ripe in October.

34. *Tyson.*—A very rich, sweet, summer pear, of medium size, and pyriform figure. The *Tyson* and *Rostiezer* are among the few pears which may be said to approach the Seckel, in flavor. The growth of the tree is healthy and vigorous,—making a handsome top, resembling the Seckel, but taller. Ripe the last of August. A native of Philadelphia.

35. *Las Cañas.*—Received from M. Emilien de Wael, of Belgium. It proves to be a very fine pear, of medium size, pyriform; skin pale yellow, often partly covered with thin russet; seeds very black; flesh juicy, very sweet and rich. Tree upright and vigorous, bears young and well. October.

36. *Paradise d'Automne.*—Quite distinct from the Beurré Bosc, though resembling it in general appearance. A very striking difference is observable in the flowers. The texture and flavor of the flesh are even superior to that magnificent pear. I consider it the most valuable addition to the list of fine new pears which has ever been introduced at the Pomological Garden. The growth of the tree is more vigorous than any other pear whatever. October.

37. *Citron des Carmes Panache*, or *Striped Madeleine.*—The difference between the fruit of this, and the common Madeleine, consists in the skin of the former being striped with light yellow, and the flesh being a little sweeter; wood short jointed, striped with dull red and yellow. Not being as vigorous as the common Madeleine, it is less liable to the blight. Of two trees, standing about three rods apart, the striped variety has never been in the least affected, though much younger than the common kind, which was badly injured. Both varieties ripen together.

38. *Doyenné d'Eté.*—A nice early pear, and very handsome; rather under medium size; form obovate; skin yellow in the shade, bright red next the sun; flesh juicy, and of pleasant flavor. Ripens the last of July, with the Madeleine, and is full as good. Bears very young; trees of two or three years from the bud are frequently covered with fruit buds, making it quite difficult to get any growth on them.

39. *Jean de Witte.*—A new winter pear, not unlike the Winter Nelis in size and flavor, and I think fully equal to it; form obovate, a little flattened; skin pale yellow. "No. 1482, of Van Mons," which I have before described and recommended, proves identical with *Jean de Witte;* as also, Nos. 1082 and 1602. The habit of the tree is very similar to the Seckel, with short jointed shoots and compact head.

40. *Plombgastel.*—This bas fruited on scions received from J. C. Lee, Esq., who imported it from France; medium size, dull, greenish yellow and russet, in flavor about as good as the Bartlett. The tree makes very stout shoots, and grows well on the quince. September.

41. *Calebasse Monstreuse.*—A large obo-

vate pear, tapering both to the eye and stem, very productive, and excellent for cooking. Winter. Its shape not being at all like that of a calabash, has created some suspicion that it may be incorrect. It was received from M. De Wael.

42. *Fantasie Van Mons.*—Worthless.

43. *Bruno de Bosco.*—Worthless.

44. *Hampden's Bergamot.*—Often very large and handsome; skin smooth and yellow. I have tasted specimens which I thought as good as the Bartlett. First half of September.

45. *Citron of Bohemia.*—I think this has been overrated. It is a breaking pear, ripe the first part of September, and is certainly inferior to others of that season.

46. *Marulis.*—A Belgian fruit; a strong grower, very productive, high flavored, and high coloured, but rather small and dry. August and September.

47. *Johonnot.*—Exceedingly rich; in flavor and appearance resembling the Brown Beurré, from which it was not improbably raised. I do not know of anything surpassing it in flavor. Ripe here in September.

48. *Angleterre of Noisette.*—Very distinct from the Beurré d'Angleterré. A large roundish pear, of a dark green colour, with a dark brownish red cheek. I do not consider it yet fully proved; but so far as it is, it does not appear worthy of propagation. Further trial may develope some valuable properties, either as a cooking or dessert fruit.

49. *Jalousie de Fontenay Vendee.*—Productive, and very fine flavored.

50. *St. André.*—Very delicious; wood somewhat apt to canker.

Robert Manning.

Pomological Garden, Salem, March, 1849.

CHICAGO, HORTICULTURALLY.

BY J. A. WIGHT, CHICAGO, ILL.

In estimating the advantages and disadvantages of our city,—Chicago, and its immediate vicinity, for horticultural purposes, it is necessary to put forth in the beginning a word of caution; that is, that this spot must not be compared to any other part of the western country, or supposed to furnish any index to the character of any other part; for, so far as I know, it is a complete exception to all the rest. This would not be thought strange in the eastern states, where the distance of a few miles completely changes the face of the country. Why should it here? And yet, eastern people are in the habit of talking about "the west," as though it was some ten cornered potato patch, not a whit bigger than Rhode Island; as though a description of one part must answer for all. The west now extends from Lake Superior to the Gulf of Mexico, and sweeps on from whatever line eastward, you please, to the Pacific. Can there be any such thing as homogeneousness then? It is true, that changes in climate and surface are much less frequent in this, than in the eastern regions; but they must nevertheless occur.

Chicago and its vicinity embrace a tract of land, lying along the lake shore, from a point about twelve miles north of the city, and southward from it as many more, and about twelve miles in width; consisting, for the most part, of a flat prairie, elevated from seven to twelve feet above the waters of the lake; and rising, as you proceed westward, at the rate of one foot per mile.

Along the lake shore is a ridge of sandy land, and a similar one runs nearly parallel to it, at the distance of from seven to nine miles. So much for surface. Now for soil. This consists of a muck, about ten inches or a foot in thickness, of a texture so fine that it would seem to have undergone trituration in a mortar, resting on a bed of blue tough clay, capable of being dried in the sun to the hardness of stone. As you approach the lake shore, this stratum of clay *dips* considerably; and above it, lies a fine calcareous sand, and in places loam, mingled more or less with shells.

The lake shore affords a beautiful drainage, the influence of which is felt to the distance of three or four hundred feet, which, with the warm sand, mingled with the soil, gives vegetation an early and rapid growth in the spring. Of the second ridge, heretofore spoken, the same observation may be made. These are the exceptions. The great bulk of our soil is that first described.

You will perceive, then, that our first great want is drainage, both of surface and subsoil. That of the first is easily enough effected, though, for obvious reasons, it cannot be very rapid. That of the second has never been, so far as I am aware, attempted. In the city, a sort of compensation for it is effected by "filling up." Much of the old town of Chicago is now from three to five feet higher than it originally was, from this process. The most formidable obstacle, in the way of bottom drainage, is neither our low nor our level soil. It is nothing more nor less than its exceeding fineness; by which it is packed together, from the bottom upwards, so closely that water can no more escape from it than from a sponge. The successful and universal mingling with it of coarse materials, would alone effect all we want.

The soil is one difficulty. Another is the climate. Our situation, near the southwestern extremity of Lake Michigan, exposes us to two dangers; one is the west wind of winter; the other is the north wind of spring. The first continues from one to twenty days, though the latter number is seldom reached in succession. During their continuance, the skies wear a face as calm and clear as that of an angel, while their heart is as cold as that of a fiend. The mercury sometimes sinks at this point to 15° below zero, to 25° at Rock river, and to 30° at Galena. The fate of peaches and other delicate fruits may be imagined, from such an ordeal. To these the lake affords us no protection. Sweeping from away westward to the Rocky Mountains, overland, with no water to soften their ferocity, their bite is as remorseless as that from the fangs of fate. Our neighbors across the lake receive them subdued and tempered by sixty miles of Lake Michigan; and hence, peaches and apricots are abundant on that border, while we have none. Happily, these winds and this degree of cold are not uniformly to be expected. For five winters past their occurrence has been seldom, short, and their temper comparatively mild. I find the mercury at zero but twice in any winter; and for two out of the five, not there at all. That of 1842 and '43, gave us an almost constant succession of these winds, with the mercury ranging as first indicated. The present season corresponds to that, though a shade milder. The mercury has been 11° below zero twice, and once 14°, up to this time.

Our second difficulty, the north wind, blesses us three-fourths of the year, and blasts us the remainder. From July to March, our pleasant gales are from that direction. They temper the heats of summer, and the colds of winter. They dissi-

pate the congregated malarias and cack-odorous effluvias of the city, seething under August fires, and brace up the languishing denizens with new vigor and elasticity. But oh the spring! We may as well say we have none. We make numerous attempts at one annually; but every notch we get forward has its offset of a slip or two backward, till somehow or other it gets to be summer. These northern gales frown down on us, reeking with the breath of polar bears and icebergs, for days together, blasting our tender plants, and our hopes together. The following is not an unusual "programme of exercises," for any number of cycles each year: First, come two days of south wind,—the mercury rapidly going up to 75° and 85° Fahrenheit, calling forth the tender leaves prematurely,—the ground yet as cold as November. Then, short as the crook of your elbow, are six days of north wind,—the mercury falling to 38° and 45°. Oh, horror! Now look to your starting vegetation. But this is not all. The north wind brings a rain. The water comes in an avalanche, and the fine soil drinks, and holds it with the eagerness of a toper. Now come two days more of south wind and heat. Your poor tree stands with its feet in the ice, and its head in the fire. If it, or its ancestors, have been crossed with the northern seal, and the salamander both, it may live.

You are perhaps ready now to say, that we may as well give up all ideas of horticulture. Not so. We are managing, with all these disabilities, to get many and most of the best fruits grown, while the choicest plums known to eastern gardens, year by year, find their way into our midst. In the city, fences, buildings, and trees shield us partially from the winds. "Hilling up," gives us a dry, warm soil; and an abundance of manures, such as all cities furnish, with the sand of the lake shore, gives a rich one. Farther out, diligent surface draining, by throwing the land into ridges, with trees and fences, effect the same thing in a degree. Thus, by protection, where we can, and compensation when we cannot, we manage to carry our points.

Besides, our autumns are such as eastern people only dream of, or get in fitful snatches, just to sharpen their appetite for more. Serene mild days, joining hands through October and November, smile upon us year by year; and if they fail, as the past season they did, we know that it is through forgetfulness, and that they will return with returning autumn. It was during such days, that a somewhat poetic friend, on the banks of the beautiful Rock river, before they were spoiled by white men's houses and potato patches, remarked, "that this seemed the sort of air, and this the region, where angels might come down to dance away the happy hours." My only doubt was, whether these beings did any dancing at all! I have no "authentic accounts" that they do.

Apples here grow with a thrift peculiar to the northern country. But a few, as yet, have got into bearing; but these show us that we need fear nothing from competition. We shall succeed, not only with the summer and fall varieties, but with the harder and long keeping fruits, which evince an effeminacy and weakness when grown in the milder regions of the south.

Pears are just beginning to show their fruits; and we shall have nothing to fear for them. The tree grows and bears as well here as anywhere.

Plums have been fruited for several years, in many of the choice varieties. In thrift of tree, productiveness, and delicacy of flavor, we have nothing now to wish. The little pirate of the crescent, the curcu-

lio, is here; and the Green Gage, with its kindred sorts, are made to suffer. The less delicate flavored varieties are often passed by, in his preference for these.

Of cherries, I cannot give so favorable an account, though we have enough to encourage us in this direction. The Morellos and kindred sorts meet with no difficulty. The May Duke has borne for several seasons. At our horticultural exhibition in June, our tables showed fruit of the Black Tartarian, Elkhorn, Waterloo, and White Ox Heart, and many other varieties were ripened too early and too late for that exhibition. There are plenty of trees in our gardens large enough for fruit, which show no tendency to disease. Our hopes are, that we shall have cherries enough when we *know how to raise them.**

Peaches and nectarines are more precarious than cherries. The west winds of winter, the cold succeeding mild weather, the dry winds of spring, the peach worm, and I know not how many other calamities manage, one or all, to fall upon the poor peaches. We can, hitherto, hardly calculate on them oftener than once in five years. Still, everybody has peach trees. Their bloom is beautiful, when young; their thick bushy habits, and abundant foliage, are highly ornamental; and if any fruit *is* obtained, so much clear gain.

With strawberries we have made little headway. A Cleveland gentleman once sold us Hovey's Seedling, which was assiduously cultivated in all our gardens for several years, without a berry; and then proved to be a worthless Hautbois, barren in England this thirty years. We have since the genuine; but get little more fruit from it than its counterfeit. A plant known here as Grove End Scarlet, bears abundantly. Of other varieties we have many, but imperfectly tried as yet. Of the twenty new, Long Island varieties, originated by "a single nurseryman," we have none, and shall try to get along without them.

Raspberries are in the same category with strawberries. The tender varieties do not succeed well, with the culture they get. Hardy ones do well, and bear abundantly. The old Barnet is hitherto the most successful, though the Franconia bore well the past season in some of our gardens.

Gooseberries—what shall we say of gooseberries? If Lancashire produces more or better, with the same culture, right glad are we. Mildew, or no mildew, our gardens give us *bushels*, almost as plenty as *bushes*. We have nothing to ask here.

Of currants and the like, we can say the same. The culture of grapes is more advanced than that of any other small fruit. The standard variety is the Isabella. The Catawba will hardly ripen its fruit with uniformity. Winne, Clinton, and similar small sorts, are plentifully distributed. Two or three new or unknown varieties, earlier than the Isabella, and as good in size and flavor, have been exhibited at our horticultural exhibitions.

In the matter of ornamenting grounds, and shading streets, those who care for it work at disadvantage. The magic ideas connected with such phrases as "corner lots," "rents," "double in value," "going up," are too much for "trees," "shrubbery," and "roses." Sometimes the two sets of ideas can be yoked together, and made to pull the same way, and then "a smashing business" is done. Once in a while, the love of the beautiful gets the upper hand, and keeps it. The gentler part of human creation feel less enthusiasm about "corner lots," etc.; and their aid can al-

* Our western readers will find Prof. TURNER's remarks on the cherry, in our last number, valuable on this subject. ED.

ways be rallied for such delights as their mother Eve knew, in the days of her innocence. Hence, we make headway. Our streets get acquainted with new trees; our walls feel the embrace of new roses, and our gardens get help to smile from new shrubs and flowers. The numbscull, with the solidest wooden head, can feel a little when fine flowers and luscious fruits are put before his eyes; and hence the ground we gain works in multiplying ratio annually.

Our horticultural society, of about eighty members, though with but few workers, keeps sedulously but silently in motion, aiming, by repeated blows in the same direction, to produce an impression. There is evidence that it is effecting something. But I am spinning too long a yarn, and will stop here. J. A. WIGHT.

Chicago, Illinois, February, 1849.

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We thank Mr. WIGHT for his graphic and vivid picture of gardening at Chicago; one of the most remarkable of all our new western cities.

It will strike some of our English readers as not a little remarkable, that in a climate so apparently unfavorable in its winter and spring temperature as that of Chicago, so much can be done; that pears, apples, plums, etc., can be grown in abundance, and of the finest quality, as open standards, when in their mild climate, walls are almost everywhere needed to get a ripe fruit of good flavor. This is owing to the *tropical summers* of almost all the United States; the abundance of sunshine that ripens both fruit and wood so perfectly.

Chicago is so peculiarly exposed to cold winds, which sweep across a lake surface, almost like that of an ocean in extent, that we commend to all amateurs there the study of the admirable method of protecting gardens against high winds, adopted by Mr. TUDOR, in his celebrated Nahant residence, near Boston,—and which we have described, in volume ii, page 57. A garden at Chicago, treated in the "Tudor manner," would have a climate comparatively as bland as that of Madeira. ED.

COAL ASHES VALUABLE AS MANURE.

BY WEST JERSEY.

SIR—Can you give some of the readers of the Horticulturist information of the virtues of anthracite coal ashes, their chemical nature, their strength, compared with wood ashes, and to what soils or plants they are particularly suitable?

I do not remember seeing anywhere a statement of their qualities, except a late remark in your monthly, that thay are a good dressing for cherry trees. It is the prevalent opinion here, that they are absolutely good for nothing as a manure; and, consequently, they find their last resting place in the street.

Our soil is light and sandy. The farmers just here prefer lime and ashes, while two or three miles off, where it is heavier, they use marl abundantly. We have many old gardens that have been manured so often they are too stimulant, and cause the produce to "wither away" under our hot suns. I know this can be remedied, by mixing with them a heavier soil, &c.; but I have been wondering, lately, whether

coal ashes might not prove suitable by supplying them with mineral matter.

If you, sir, can inform us of their practical uses in any way, you will at least much oblige your subscriber, WEST JERSEY.

January, 1849.

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ANSWER.—The only analysis of our anthracite coal ashes, that we have seen, is the following, by Professor EMMONS, of Albany:

Analysis Peach Mountain Coal—Gray Ash.

Silex and silicates,	70.34
Sulphuric acid,	1.50
Chlorine,	0.06
Carbonate of lime,	8.36
Phosphate of lime and phosphate peroxide of iron,	4.50
Carbonate of magnesia,	1.84
Alumina and peroxide of iron,	2.00
	97.50

Prof. EMMONS adds to the above analysis, that "we may suspect the presence of phosphate of lime in coal ashes, and hence, practically, that they are of importance in agriculture, even though we omit to notice the carbonate of lime and magnesia which they contain."

Now to make the matter plain, let us compare roughly the value of coal ashes, as regards *lime*, &c., with the ashes of the oak tree, one of the commonest kinds of fuel.

According to an analysis of the Royal Oak, (LIEBIG's,) the ashes of that tree contain over 50 per cent. of lime, over 5 of potash, 3 of magnesia, and not one part of silica. Another analysis of the White Oak, (BERTHIER's,) gives 3 per cent. of silica. Let us put the two ashes in contrast, so as to show the proportional value in lime, potash, &c.

Coal Ashes.		*Oak Ashes.*	
Lime,	8.36	Lime,	50.58
Phosphates,	4.50	Potash,	5.65
Silica,	70.34	Silica,	3.37
		Or *Elm Ashes.*	
		Lime,	47.80
		Potash,	21.92
		Silica,	3.07

A comparison of the above will show that fresh wood ashes contains about six times as much lime as coal ashes; and that it is also far richer in potash, which exists in but very small proportion in coal ashes. It is evident that though by no means valueless, in these ingredients, coal ashes are not comparable in value to wood ashes, where lime, potash, or phosphates are required.

But the largest part of coal ashes is silex and the silicates. Our readers must not look upon these as representing sand or flint glass; for a considerable part of silica is soluble under certain conditions, especially in clayey soils, and thus enters quite largely into the composition of certain plants. Some plants, such as the oak or the apple, contain very little silica,—say from 1 to 3 per cent. But Indian corn, (the stalk,) contains 29 per cent., rye 64 per cent., oats 53; hence it is evident, that if coal ashes contain a large per centage of silica, they must be highly useful to these crops, even though they contain little lime, &c.

We have before recommended coal ashes, as particularly well adapted for the *cherry tree*. This advice was founded on accidental experience, and not upon scientific knowledge. But a little investigation explains the reason. The bark of the cherry tree contains (Liebig) 19 per cent. of silica, while that of the apple or pear contains not a ½ per cent. Hence, it is easy to see why coal ashes would produce little or no good effect on the pear or the apple, as compared with the cherry tree.

As the bark of the grape-vine contains (EMMONS) 14 per cent. of silex, there can be no doubt that coal ashes form a valuable manure for this plant.

As silica is only rendered soluble by an alkali, such as potash or soda, it is easy to see why coal ashes are more beneficial on clayey than on sandy soils, (besides rendering the former lighter.) Clay soils almost

always contain considerable alkali—sandy soils very little—and clay soils retain water, while sandy soils speedily lose it.*

Those who have been in the habit of throwing away coal ashes, as useless to all plants, will do well to keep them for all crops with stiff and glazed stems, abounding in silex, such as corn and grain, and for such trees as the cherry, the grape, the linden, and almost all evergreens, since they all require silica in the formation of their wood and bark.

AN INGENIOUS MODE OF TRANSPLANTING LARGE TREES.

BY ALEXANDER JOHNSTON, Jr., WISCASSET, ME.

HAVING been a subscriber to, and constant reader of your excellent publication since its commencement, and having gleaned much useful and agreeable information therefrom, I feel constrained to say that I have often been disappointed in finding so little that would answer for our "latitude," as they say in the almanacs. Our winters are very severe, not only as regards low temperature, but in storms of driving sleet and drifting snow; and sometimes, as was the case last winter, we have torrents of rain, and a continual alternate freezing and thawing of the ground, which will destroy all small plants and seedlings, by *heaving out*, as we term it. We seldom see a word of caution or advice, in these matters, from any of our eastern friends, published in the "Horticulturist," for the best of reasons I presume; that is, their communications are mainly directed to improving our fruits, analyzing our soils, and recommending manures—special or general; while the wintry blasts sweep on, surcharged with death to every tender plant or "two feet" seedling throughout the state. I have lost many dollars, in "finding out," by sad experience, how to raise these small things. Last winter, out of 1000 Horse Chestnut seedlings, I lost 500 by *heaving out*. This winter I lose the balance by a tremendous drift of snow, which, in settling, has broken the plants to the earth, stripping them of every bud and branch. I lose, also, two or three hundred fine budded pears, which, though staked and tied, are crushed to the earth by the enormous mass of snow, and well nigh ruined. I have several thousand seedlings of fruit and ornamental trees, now "in good case," and I mean they shall remain so in all time to come, as far as the elements are concerned. I have "seen the elephant," and learned the lesson. More anon.

I have often, *almost*, determined to give you my method of transplanting large evergreen and deciduous trees, with perfect safety and success, and as often something has prevented. It will suit our latitude admirably, and may find favor with all. It differs, somewhat, from any other practice that has come to my knowledge. Early last spring, near the first of March, I think, and before the frost had started, I undertook to remove a large apple tree, entire. Its circumference at the ground was 40 inches; diameter of the top, 21 feet. It grew upon a *wharf*, in the worst possible place for removal, or move after it was up. It was a very valuable tree, thrifty, and worth saving, though mutilated, and annually *clubbed* by scores of boys for its fruit.

* A mixture of cheap soda ash or dissolved potash, with coal ashes, just before using them, would no doubt add greatly to their value in sandy soils.

I commenced operations by placing a layer of sawdust and shavings, one foot in thickness, around the trunk of the tree, and extending about four feet from the centre of the trunk on every side. I then covered the shavings with a lot of fir boughs six inches deep, and trod the whole hard. My object was to retain the frost among the roots for a month or more. I succeeded perfectly.

About six weeks afterwards, say 15th of April, I cut a trench, two feet wide by sixteen inches deep, all around the covering I had previously placed, shaving off every root I found square up to the frozen earth, except a few very large roots, which were suffered to project a few inches. These roots were lashed strongly to the large branches of the tree above, to help support the great weight of frozen earth. The limbs and trunk of the tree were protected by old bagging, mats, &c. An upright, dry, spruce spar was securely lashed to the trunk of the tree, say fifteen feet in length, with a rope at the top, to act as a lever in breaking the tree clear in its bed. I had previously set up a *derrick*, with stays and blocks, wherewith to hoist the tree square out of its bed. Four board battens were nailed to the trunk of the tree; and outside the battens I passed the main lashing around, which was a short link chain. The lower purchase block hooked in this lashing, and the upper block hooked to the top of the derrick. The fall led through a single block at the foot of the derrick; and to this fall I attached two pair of oxen. When all was ready, I broke the tree clear with the upright lever, hoisted it, with the cattle, square up three feet, run under the tree, and into the hole, a stout new ox sled; then "lowered away handsomely," as sailors say, and the job was not quite done, yet very well begun. I dragged sled, tree and all, up a very steep, narrow passage into the street, with the aid of tackle, cattle and *curious spectators*, where it remained over night. The next day I put on "four yoke" of heavy cattle, hauled it three quarters of a mile, planted it again safely, with the same derrick, in the garden of Barker Neal, Esq., where it now stands, secure as though it had grown there. The tree and earth weighed nothing less than 2½ tons, many "teamsters" said 3 tons. It bore a few apples last year, and did'nt know it had been moved till *boy time* came again.

Evergreens I have moved, on the same plan, viz., by retaining the frost about their roots with a covering of boughs till April, when they will "come out" almost entire. I moved two splendid Norway Spruces, 20 and 24 feet high, last spring, and planted them safely on my own premises; beside a great number of firs. The success attending this method is certain; the expense very moderate. There is no need of a derrick and tackle in most cases. The tree can be pulled over, and placed upon a drag or sled, if not too heavy to raise again. I have moved deciduous trees, such as Rock Maple, Elm, &c., of very large size, in this way with gratifying success. As they grow without stopping, and very soon become large trees, the trouble and expense is not worth reckoning. I have tried all other methods, but, of course, like my own the best. I shall go in a few days to select evergreens to be moved in this manner.

The holes, dug for their reception, should be large, and the subsoil loosened; and every tree should be carefully set, the roots faithfully filled in with earth, and the whole trod firmly together, and secured from blowing over for one year at least. The aforesaid great apple tree required no stays. It would have taken a small hurricane to have

blown it off the sled even; so great was the weight of the frozen mass about its roots.

In conclusion, Mr. Downing, I hope *every man* in New-England, as well as "down east," will plant trees, tell each other how to get along, and subscribe for the "Horticulturist." Yours very truly,

ALEX. JOHNSTON, Jr.

Wiscasset, Lincoln co., Me., February, 1849.

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REMARKS.—Mr. JOHNSTON's mode of transplanting is new to us, and strikes us very favorably. No method of transplanting large trees, ever practiced under our own eyes, has ever been so successful as moving them with frozen balls in winter; and though the transportation of large trees may be easier when the ground is covered with snow than in our correspondent's mode, yet the latter has the advantage of being performed at a season when replanting can be done much more completely than when the surrounding soil is frozen.

We are often impressed, in our somewhat extended correspondence, by the great extent and diversity of the United States, as a field for horticultural labors. Immediately after reading Mr. JOHNSTON's account of the frosty air of Maine, where the temperature of zero is considered a *comfortable* condition of things for a month to come, we opened an epistle from a friend in New-Orleans, (dated ten days before Mr. J.'s,) in which he dilates with *gusto* on the flavor of the first strawberries, gathered there in the *open air!* ED.

HINTS ON THE FORMATION OF RURAL TASTE.

BY S. B. GOOKINS, TERRE HAUTE, IA.

HERE beginneth a chapter on AMERICAN RURAL TASTE. *American!* says Mr. BULL, turning up his nose at the idea of locality and nationality, in respect to taste, and especially American. Why not, sir? Genius has no locality, it is true; but its productions are modified by circumstances, as the mutations which have marked the progress of European civilization abundantly prove. Taste is the discrimination of beauty; and in proportion as it is good or bad, will this discrimination give character to the literature and arts of a people. The critic and the connoisseur profess to have attained a refined and exalted perception of the truthful and the beautiful; and the developments of genius, literary and artistic, attain their measure of perfectness, be it greater or less, under the guiding and moulding influence of their censorship. But their perceptions of the truthful and the beautiful are not the coinage of nature's mint. The standard of perfection in the imagination of the critic, is also the product of antecedent causes; and the various circumstances of a people, in respect to manners, habits, soil, climate and institutions, political and moral, in their turn furnish a standard for the critic.

Take, for example, the architecture of a people. The roving tribes of the earth construct their habitations in a style demanded by their habits of life. The Arab tent protects its occupant from the scorching sun of the desert. The Indian lodge of buffalo skins shuts out the driving snow of the prairies. No enclosures secure the waving corn from trespassing animals; for there are neither corn to wave nor cattle to encroach. The seasons do not bring to

him a succession of seed-time and harvest; but of hunting, fishing and marauding. He is here to-day, and is gone to-morrow. He has no local habitation; and the arrangements of his domicil correspond with his social state.

Advancing from savage to barbarous, and from barbarous to civilized society, the operation of this law is equally manifest. If the state of society be such that every house must be a castle, will not this fact give character to its architectural designs? What idea is expressed by the battlement, the turret, the castellated wall, but that of security from aggression, of protection from violence, of stately barons clad in armor, and dependent vassals seeking a refuge from lawless hands in the shadow of the citadel? What is picturesque or poetical in the mouldering wall, with its ivy drapery, but that it tells of the days of chivalry, when knight-errantry did homage to beauty? Wherefore sang Ossian not of the softly resplendent glories, the mild beauties of the landscape? His muse, true to the inspiration of the spirit of his age, has chronicled not these, but the unrivalled prowess, the high-souled daring of his hero, age, and his heroine likewise; for the spirit of the age allowed of no beauty that was not heroic. To a modern beauty, could the utmost stretch of his imagination have conceived the idea of such a being, in all the potency of rouge, bustle and bloom, soft charms and terriffic fainting fits, his muse would have assigned a place with harlequins and other burlesques upon humanity.

Hence, the taste of a people is their sense of the fitness and adaptation of any particular work of art. It is the embodiment of their artistic designs; and setting in judgment upon any particular style, will approve or condemn, accordingly as it approaches or varies from its own standard. We admire the creations of the painter and the poet, not so much for their beauty as for their truth, and the very hideousness of the artist's production is often its real point of interest. So truly have past ages foreshadowed national taste, in their works of art, that in every sketch, however rude and imperfect, if truthful, the practiced eye detects those lineaments which mark its locality and date, with as much precision as the comparative anatomist determines the size, habits, disposition, and even the native country of an animal, by the inspection of a single bone.

American rural taste being in its nascent state, is now undergoing the moulding process; and it is amusing and sometimes ludicrous to see some of the specimens of its apprenticeship. I will not aver that the marble column, with its sculptured capital, has ever actually found its way into the wigwam, and become part and parcel of it; but I must be permitted to say, that some of our specimens of style present to the eye of the beholder a commingling of incongruities almost as absurd. They often remind me of a picture a friend once described to me, designed to represent the departure of the prodigal son from the paternal mansion The interior of the apartment discovered the father in bag-wig, small-clothes, and embroidered collar, after the manner of the old English gentleman, drawing from an escritoir, of modern construction, the son's portion; the son dressed in the style of an exquisite, of the present day, with a coach and four standing at the door; while, in the back ground, the Constitution was pouring her broadsides into the Gurriere, a thousand years before the invention of gunpowder! Should the production of this prince of artists outlive those of a RAFAEL or a MICHAEL ANGELO,

the antiquarian of a thousand years hence may be somewhat puzzled in assigning to it a particular locality and date.

The peculiarities which distinguish the American people from all others, are no less marked than those which have left their impress upon the works of art in ages past. In the first place, we are a nation of landholders, landlords,—not mere occupants, but owners of the soil. Without us, the world is divided into master and slave, nabob and serf, lord and vassal, or, at best, landlord and tenant; while here, every man may, if he will, stand upon his own freehold. The effect of this great American fact, upon our rural taste, will be its universal diffusion. It may not be that it will, in every instance, distinguish between the habitations of owner and occupant; for even in a very advanced state of general cultivation there will doubtless be negligent landlords, and tasteful tenants; but if any one doubts the influence of this fact, let him set about planting trees and improving grounds upon the land of another. If its power be not made manifest to him by this process, he must be a rare specimen of humanity indeed.

The eye of the traveller in Europe rests with delight upon fine displays of rural taste and architectural symmetry; but these are usually the offspring of concentrated wealth. Like the light in a picture, they stand out upon the face of the landscape to challenge his admiration, and to draw his attention from the dark back-ground of servility and vassalage which surround them. In the present form of their social organization, it is necessary to maintain an aristocracy. Their law of primogeniture and system of entailments are retained for this purpose; but we have banished them, as inconsistent with the principle of universal equality, which we have incorporated into our political institutions. The one concentrates wealth, the other diffuses it. That great wealth is often a patron of the arts is true; but it by no means follows that it is essential to a high development of taste. The man of taste is the artist, not his patron. I have been through splendid gardens, the owners of which had set them up, as confectioners do their wares in the window, to be gazed at and admired; and I have seen such a proprietor, who did not know even the names of many of his rare plants. The difference between him and his gardener was that one possessed taste, the other vanity.

We are furthermore distinguished as a people of peace. It might not be easy to convince a Mexican of that fact, just now; but it is nevertheless true. Peace is our policy; and it cannot be otherwise than that its softening and mellowing influence should be thrown like a veil of light over our national taste. Posterity will find along the track of our history no baronial castles, whose puissant lordlings have exercised despotic sway over a territory forty miles in extent; no ancestral halls, decorated with helmet, spear and cuirass, grim mementoes of a blood-thirsty, revengeful race; no footprints of large standing armies, whose errand on earth was to scourge and to destroy.

Individual and personal responsibility, to man and to his Creator, with its long train of charities, diffusive benevolence, and other blessings have also taken the place of asceticism, seclusion, of veiled nuns and hooded monks. When we shall be numbered with the ancients, no mouldering abbey, in the dim and misty retrospect, will lift its spires and pointed gables above the clouds of ignorance and superstition, in which its foundation was laid. Education universally diffused, alike the hope of the patriot

and the theme of the demagogue, with the iron pen of the steam and the lightning, is writing its record upon the monuments we are now rearing along our pathway.

I cheerfully acknowledge my obligations to a pen, very familiar to the readers of this journal, for the most valuable efforts in this delightful work of beautifying the earth, and of moulding into forms of surpassing beauty the materials of which our national rural taste is in process of formation. The country owes a debt of gratitude for the *Landscape Gardening*, the *Cottage Architecture*, the *Fruits and Fruit Trees*, and the *Horticulturist*. I admire such rich and tasteful displays of our noble art as the manor of Livingston, Beaverwyck, Blithewood, and others. These costly specimens of architectural grace and rural beauty, while they elicit our admiration, are perhaps in some danger of begetting in the minds of the masses the erroneous impression, that the pleasures of tasteful cultivation are not within their reach. The farmer, for instance, of one, five, or ten thousand dollars, takes up a work on cottage architecture. His eye glistens with pleasure as he runs over its tasteful designs. He commences reading, and goes on with increasing interest until he comes to the estimate! He drops his book, and raises his hands, in utter astonishment; and the vision of a rural cottage, with beautiful grounds, at which his imagination had been busily at work, is gone forever. Why, friend, did you think you could build a house without money? No, quoth he; but who would think of abstracting so large a sum from so small a capital? I wish you, Mr. Downing, to tell this man how much of natural beauty he might appropriate and enjoy at almost no cost at all. Make him understand that there is a bank, whose funds are exhaustless, upon which he may draw, with the certainty that his checks will never be dishonored; although he may have neither a manor of Livingston, a Beaverwyck, or a Blithewood for endorser. Let him listen to the eloquent Lamartine: "Believe not that those enjoyments are reserved for the mighty of the earth, to the real owners of riches or of gardens of celebrity, like those of Versailles or the Tuilleries. * * * No, there is no need of wealth, of magnificence, of extended domain, to enjoy all that God has hidden of happiness in the culture or spectacle of vegetable life. Those are pleasures which it is not given to fortune to appropriate and monopolize. Nature is never aristocratic. She has not endowed the poor with other perceptions than the rich, of natural delights, nor the idler than the laboring man. * * * The human soul is endowed with such a faculty of extension and contraction that it can overflow the universe, and, like Alexander, find it too narrow for its desires; or it can concentrate, and, as it were, fold itself up, upon a mere spot of earth, and exclaim, with the sage of Tiber, with his half acre sowed with mallows, and watered by a little streamlet,—'This little spot of earth is all the world to me.'"

Every cit has his day-dream of a country seat or suburban villa, where the retired merchant, artist or professional man, relieved from the bustle of business, is to enjoy his eventide in the calmness and quietude of rural life. He looks forward to the time when the drudgery of business is to be abandoned, or left to other hands; the stock of money or wisdom he has acquired, standing as his permanent investment in the firm, against the labor, activity and industry of the junior partner, on whose head "no silver hair has yet appeared, to mark the wane of time." These imagin-

ings are usually the substance, and the only substance, of the things hoped for, and, as frequently, the evidence of things not seen, not however, because the vision has no reality, but because there is no taste formed to enjoy it. The man whose entire active life has been devoted to legers, balance-sheets, and bills of exchange, might as soon expect to turn his attention to shoeing horses, and to find pleasure in the occupation, as to be transformed into an admirer of nature, which, after all, is the chief element of rural enjoyment, by simply removing from the city to the country. The city is no hot-bed for the propagation of this rare plant. Rural taste may, to a very limited extent, perhaps, be transplanted from its native soil to the town; but like flowers, in a dusty and illy ventilated room, it can have but a sickly shrivelled existence there.

This taste, like any other power of the understanding, is to be redeemed from man's natural downward tendency to laziness, ignorance and depravity, and, like any other mental bias, can be inculcated with much greater facility early in life than at any time afterwards. As we have the elements of its universality in an extended proprietorship of the soil, I hope yet to see the homes of our fair land made beautiful to our eyes, and attractive to our children. There is a sublime moral in this. How many young men are entirely ruined by the want of an attractive home. A volume might be written upon this branch of the subject; but, lest I be wearisome to you, I will conclude these hints with my own day-dream, which is, that all the school-houses and homes of our land may be made so attractive to our children, and our children's children, that the vicious pleasures and excitements of the town shall not be sufficient to seduce them from their love of the country, and to Him who, in the benevolence of his nature, has given them such ample sources of pleasure, and so rich a heritage.

S. B. Gookins.

Terre Haute, February 24, 1849.

A HINT ON KITCHEN GARDENS.

BY GEO. KIDD, RED-HOOK, N. Y.

Will you allow me, through the columns of the Horticulturist, to suggest to those about forming new gardens, that a deviation from the usual European mode is desirable. It is too generally the case, along the Hudson, that the formality of the kitchen-garden, and its close proximity with the mansion, mars the effect of a fine landscape; and the necessarily tedious mode of cultivating it, is by no means in accordance with the energetic character of the Americans. It is desirable, in many respects, that the kitchen-garden should be near the barn-yard, and so arranged that the bulk of the work may be performed with the *plough*.

The ground should be thoroughly subsoiled previous to cropping. All crops should be in continuous rows,—allowing a greater distance between the drills of the smaller vegetables than in the old method.

There are various implements to be procured at the agricultural warehouses, adapted to the cultivation of even small vegetables, like onions, by horse power.

All cross-walks, alleys, and the usual borders for flowers being dispensed with, the ordinary allotment of space will still

answer. The advantages of this plan are, first, a great saving of labor; and next, the greater expedition with which the work is done. The latter is an important consideration to most of us on the Hudson; as the spring opens so late, there is much to be accomplished in a short season. The gardener will also be enabled to turn his attention earlier, and more fully, to the lawn, walks, shrubbery, &c., as well as the cultivation of the finer fruits.

I introduced the practice with the plough several years since, and the result has been highly satisfactory. [Excellent advice. Ed.]

Respectfully yours, Geo. Kidd,
Gardener, with Robert Donaldson, Esq.,
Blithewood, Dutchess county, N. Y.

Red-Hook, N. Y. March 8, 1849.

VARIETY IN ORNAMENTAL PLANTATIONS.

BY WILLIAM BACON, RICHMOND, MASS.

Our American forests are justly the admiration of all travellers. Rich, in the almost interminable variety of their products; majestic, in the huge, massive columns they present, rising in grand sublimity to support their own tall canopies; their leaves, varied in form, and beautiful in symmetry; their flowers, of almost endless name and hue; it is no wonder that they attract the notice, and call forth the raptures of all admirers of what is rich in perfection and beautiful in loveliness.

But it is amid the glowing scenes of autumn, when the winds are pealing their earliest dirge over the decay of summer; when every leaf is arraying itself in the drapery of death, dyed in its own heart's blood; when the hillside and the grove present every hue that the imagination can inspire, or the pencil portray, that our forest retinue puts on its most fanciful garb, and attracts, with most admiring wonder, the fond gaze of all beholders.

If *variety* makes the forest so beautiful, why does it not give equal interest to our parks and avenues? Yet, in these repositories of improvement, how seldom do we see its nature studied, or its interest excited! "All elms," was the exclamation of an astonished visitor on Boston Common, the first time its graceful avenues burst upon his vision. And in looking over the studied lines or fine groups of trees, planted by the hand of man in different sections of the country, we find the same tasteless *similarity of kind* to exist almost everywhere. In most sections, the maple has been the subject of the mania; and whether soil or other circumstances would warrant its success or not, the maple has been the prominent favorite of all tree planters.

Why this unanimity and uniformity of taste we never could determine; but are rather inclined to impute it to Yankee go-a-head-ativeness, than any other cause. Many, no doubt, will say its a beautiful tree; and what tree of all our lengthened vocabulary is not, when placed in circumstances favorable to a full development? Is not the oak as beautiful, with its long, brawny arms, or the elm, with its thousand tiny twigs, growing from the ground to the parting of the branches, and making it a pillar of verdure, from the root to the apex? What is more beautiful than the beech, adapting itself to every form, the most romantic fancy can invent? We have one in our mind, at the present time, which has

had more genuine admirers, perhaps, than any maple that ever grew. Its trunk rises about seven feet before the branches, which are very slim and thrown off. The original top is nearly a semicircle, with branches rather decurrent, top thick. For some six or seven years, the main shoot has arisen above the original head, and formed a beautiful spire over its summit, so that its present form is very prettily illustrated by a spread umbrella. And who knows but that other beech trees, planted out under favorable circumstances, may assume equally fantastic forms. At any rate, they will be beautiful in their expanding youth, and grand trunks, and venerable heads, in honorable age. Then there are also our hickories, the ash in its varieties, the birch, and, indeed, the different tribes of our sylvan denizens. How beautiful they would all be, interspersed by the tasteful hand of fancy by the wayside, or in groups, flourishing in each other's shade, and with sheltering arms shielding each other from the sunshine and the storm. Then, too, our beautiful evergreens, (we protest against the use of the pruning knife, in their behalf,—get such as have roots and health, to nourish all their branches,) our long neglected, but rich and beautiful *hemlock*, the pines in their variety, with the firs, the cedars and spruces, thrown in to give variety to the foliage of summer; to act chief mourners in the desolations of autumn, and scatter many a cheerful smile along our pathway, through the rugged storms and cheerless cold of our winters.

Who would not love to wander through such an avenue in spring, when nature is bursting into life, and witness the varied forms of leaf and flowers, as they expand into perfect being; to sit beneath their shades in the heat of summer, when in their fullness of verdure they woo the cooling breeze; and in autumn, the time of "the sere and yellow," who will not see beauty there, in that fading foliage, in comparison of which that of our present avenues, composed of single species, is but a pleasing monotony.

In this age of rural improvement, when parks are springing up by magic around a thousand dwellings, and in places of public resort, when tree-planting in our highways and byways is giving beauty to the public thoroughfare and the solitary place, is it not reasonable to hope that a reform will present itself—that nature will be followed more, and dull, monotonous art studied less? Now that the kind influences of spring are again upon us, and nature is again wooing us back to her fond embrace, by her resistless charms; now that thousands are busy in enriching their grounds with her noble offerings, will not *many* of all the numberless planters help to carry out this project, of varied tree-planting.

We are aware that the objection may come up, that the farmer is in a busy season, and that others are engaged in pursuits that leave but little time for the employment; therefore, they must put out such trees as are most easily obtained, and will be most likely to succeed. But let us remember that we plant for ages; that other generations will arise to admire or reprove our taste, and enter upon the realities of our creation; to enjoy the shades, and gaze upon the beauties we have scattered around. And in view of this, who will not be stimulated to do well and wisely what he undertakes? The extra labor of planting a tree well,—what is it, compared with the success attending its performance? Even if a few less are planted this spring, or next autnmn, in consequence of the pains to have it well done, a realization will be found more than sufficient for the toil.

You yourselves will be encouraged in the labors of your own hands; and others, hitherto faint-hearted and inactive, will witness your triumphs, and imitate your example, in these labors of private interest and public philanthropy; and so the work will move on, through your influence, until its consummation is attained, and our cultivated landscapes, in their farthest nooks, are clothed in new beauty and loveliness.

WILLIAM BACON.

Richmond, Mass., March, 1849.

NOTES ON THE FORMATION OF VINE BORDERS.

BY WM. SAUNDERS, NEW-HAVEN, CT.

THERE is, at present, considerable attention directed to the nature of the soil most suitable for the growth of the grape-vine; and, notwithstanding all that has been written about it, the subject appears still undetermined, if we are to judge from the many dissenting opinions that are from time to time promulgated. As it is by the interchange of ideas that we can correct false impressions, and ascertain true principles in any branch of science, I beg to offer the following remarks, in the hope of promoting the end in view.

We are informed, by the valuable researches of chemists, that all soils contain organic and inorganic matters; the first of these embrace carbon, hydrogen, oxygen, &c.; and the latter, potash, soda, lime, magnesia, alumina, iron, silica, manganese, sulphur, phosphorus, chlorine, &c. These ingredients are again found in more or less quantities in all plants; hence, it has been established as an axiom, that the soil which contains the greatest quantity of the constituents of plants, is the most suitable to their growth.

Chemical analyses have also established the fact, that *turfs from old pastures* present the greatest quantity of those constituents; the organic part of which, yields to plants humic, ulmic, geic and other acids, and supplying, by its decay, in contact with the air which penetrates the soil, ammonia, carbonic acid, and other nutritive substances; and also liberating inorganic, that is, saline and earthy matters.

We farther learn, from analysis, that fresh stable manure, contains more or less of nearly all the inorganic constituents of plants, and from 20 to 25 per cent. of organic matters; and, I believe, it is considered to contain more of *all* the constituents than any other manure, and evolves, during decomposition, considerable quantities of carbonic acid gas, ammonia, &c.

This, then, would be my material for growing grape-vines. I would take bits of the turf, not exceeding four or five inches in thickness, from an old pasture of good loamy soil. I would add about one-fourth part fresh stable manure, as free of litter as possible; turn it in rough, and mix it well with broken bones, or rough charcoal. These, mechanically, would keep the mass of soil open and porous, and allow a free circulation of the atmospheric gases; and chemically, the bones would supply phosphate of lime, and other necessary elements, while the charcoal would condense ammonia, and by its colour increase the warmth of the soil. If additional stimulants were necessary, I would supply them in properly prepared liquids, which is the most scientific and beneficial manner of applying manure to the roots of plants. "Solid substances, whether vegetable, animal, or

mineral, cannot be introduced into the organs of plants, except in a state of solution with water, or when they are so minutely divided as to be carried along by adhering to that fluid." Another advantage is, that these can be applied at the very time the plants are in most need of it.

I have been led into these remarks by reading, in the Horticulturist of the present month, a letter from a "New-Jersey Subscriber," advocating the introduction of dead carcases, &c., into grape-vine borders; but I confess my inability to comprehend his meaning, when he states that—"They should be freely mixed with the border, in such a position that the roots of the vines will not reach them until the flesh, fat, &c., is reduced to a proper condition for their consumption." I have taxed my ingenuity to find out this *position*, but have failed. The "mixing it freely with the border," and, at the same time, giving it a particular "position," perplexes me. But, would this not contain a superabundance of organic matter? I fear so. Thirty pounds of flesh contain as much nitrogen as one thousand pounds of manure. Besides, "Animal substances, in the act of decomposition, communicate their own conditions to other systems capable of entering into the same state, if no cause exist in these parts by which the change may be counteracted or destroyed." That no such cause exists in the roots of the vine, I have had ample proof. I have seen several instances, and heard of a good many more, where dead animals were introduced into vine borders, and in every case it has led to ultimate failure. I have seen it mixed freely with the soil, and also placed at a considerable distance from where the vines were planted; and in all cases that have come under my notice, the plants made a useless luxuriant growth for two or three years, producing little or no fruit, and that of a bad colour and flavor; and on examining the roots, I invariably found, that wherever they had come in contact with the putrid flesh, they were entirely dead for a long way up.

On the other hand, from borders made up with loamy turf, in the manner stated above, I have seen the most beautiful crops of grapes produced. From such, I have cut Black Hamburghs, weighing from four to six pounds a bunch, of exquisite colour and flavor. A border made of these materials, laid on a well drained subsoil, either naturally or artificially made so, and judiciously top-dressed occasionally, to keep the roots near the surface, I have no doubt would stand good for half a century, without any danger of losing a crop, at least, as far as the soil is concerned.

These are my views of the subject; and if I am wrong, none will feel happier in being convinced of it. I might have entered more fully into detail, but consider this sufficient for my present purpose. I have no desire to dictate, but leave every one to form their own opinion. Past experience has induced me to make these remarks, as a caution to the sanguine and unwary, lest their first hopes should be blighted. And in conclusion, (as I observe a tendency to the contrary,) I would suggest that we bear in mind the old adage, and let us have "soft words and *hard* arguments."

I agree with Mr. Gabriel, that the grape-vine will, in this climate, reward the cultivator, under proper treatment, sooner than any other fruit tree with which I am acquainted. I have seen eight pounds of fruit cut from one plant, within twenty months from the time that a single eye was put in to strike root. This was grown in a pot, in turfy loam and charcoal, stimulated with liquid manure.

Wm. Saunders,
Gardener to Wm. Bostwick, Esq.

New-Haven, Conn., Feb. 16, 1849.

A VISIT TO KEW, THE ENGLISH NATIONAL GARDEN.

BY P. BARRY, ROCHESTER, N. Y.

In an ornamental point of view, there is not in England, and I might perhaps say in Europe, a place so interesting, at this moment, as the Royal Botanic Gardens of Kew. Previous to 1840, they were the property of the reigning sovereign; but since that time, they have become public property, and are now accessible to all, and, as far as possible, made subservient to the public good.

Since this change, the grounds have been greatly extended, by the addition of a portion of the adjoining property of the king of Hanover, and of the royal pleasure-grounds. The old kitchen and forcing gardens have also been thrown in,—this department having been removed to Windsor; thus giving to the gardens, to be devoted exclusively to ornamental trees and plants, an area, I believe, of nearly 200 acres. This enlargement, and the changes and improvements consequent upon it, as well as a thorough renovation of the old houses and grounds, have completely transformed the appearance and condition of the whole establishment, and placed it in a condition that entitles it to the name of the National Garden. I was unfortunate in my visit, in being overtaken by a rainy day, that greatly diminished the pleasure and extent of my observations. I ought to have had a week, instead of a day, to examine such an immense collection of interesting objects. As it was, I had to exercise a great deal of self-denial. On entering the grounds, the first object that claimed my attention was *the old arboretum*. I had it in my mind beforehand; and I thought I must first of all pay it my respects. It is a circular piece of ground, somewhat elevated, circumscribed by a walk, and very closely planted with hardy trees and shrubs, of great interest. I noticed fine specimens of *Turkey Oak*, *Cork Tree*, *Oriental Plane*, *Cedar of Lebanon*, &c. Of American trees, I saw fine *Lindens*, *Sassafras*, *Lotus*, or *Date Plum*, and many others. On one side stands the remains of a magnificent *Cedar of Lebanon*, that lost its top in a gale some eight years ago. Its gigantic branches cover I should think, 200 feet of ground. Close by the arboretum, and connected with it, is a fine collection of the new and rare evergreens. Prominent among these, is a beautiful *Indian Cedar*, (Deodora,) about 30 feet high, perhaps the oldest and finest in Europe; and here, I must add, that this noble tree is worthy of every word of eulogium that its most enthusiastic admirers have bestowed upon it. It is perfectly hardy, and grows rapidly; its habit is exeedingly graceful, and its foliage dense, and of a beautiful silvery green. This specimen is clothed from bottom to top with branches, forming a perfect pyramid, covering at the base probably 70 feet of ground, and standing, as it does, on a bright green lawn,—you may well imagine how charming. And then, its wood is hard, fine grained, and almost incorruptible,—rendering it of immense value as a timber tree. No wonder, therefore, that there should be such a mania for this tree, in a tree-loving and tree-planting country. It is said that Solomon, in embellishing the city of Jerusalem, "made Cedars [of Lebanon] as plenty as Sycamores, that grow on the plains." There is every prospect that this Indian Cedar will, in time, be as plentiful as the *Larch* or *Scotch Fir*, on the hills of England

and Scotland. In this group are some fine specimens of the new and rare spruces; for instance, a *Douglassi*, (Douglass' Spruce,) 30 feet high; *Morinda*, or Smithiana, (Smith's Himalayan Spruce,) 5 feet; and of the silver fir tribe, a fine *Webbiana*, 6 feet high; of the Pine tribe, there are a great many of the rarer sorts from southern Europe, such as the *Cembra*, or *Cembran Pine*, *Laricio*, or *Corsican Pine*, *Pinea*, or *Stone Pine*, each 20 to 30 feet; and *Austriaca*, or *Black Pine*,—a hardy fine species; and from Mexico and California, bordering on the Pacific, *Pinus insignis*, a remarkable pine, 5 feet high,—an elegant tree, remarkable for the grassy greenness of its foliage at all seasons, not very hardy, but appears to do well; *Pinus sabiniana*, (Sabine's Pine,) 12 feet high,—a very pretty tree; the ends of the branches are like plumes; *Pinus Coulteri*, (Coulter's Pine,) resembles the former,—having the same glaucous foliage, but the leaves are upright; *Pinus excelsa*, or Bhotan Pine, a noble tree, with something of the habit and appearance of our White Pine; and many others.

From this interesting group of trees, I passed to the plant-houses. There are of these, I believe, upwards of twenty. Each one is numbered, and, as far as practicable, devoted to one family or closely allied families of plants; for instance, No. 1, the old Conservatory, a fine stone building, near the entrance, formerly filled with palms, recently removed to the great palmstove, of which I shall speak presently, now filled with large and beautiful specimens of *Proteas*, *Banksias*, *Dryandrias*, &c. No. 2, called the Orangery; an old house, built in 1761, occupied till 1841 with orange trees, now filled with the rare and more tender conifers, such as *Araucaria excelsa*, or *Norfolk Island Pine;* a tree of surpassing beauty, but unfortunately tender, and fit only to grace the conservatory in winter, or the lawn in summer. There are specimens here of various ages and sizes, some of them the largest in Europe, except that in the "Jardin d'Hiver," in Paris. There are also fine specimens of *Cunninghami*, *Braziliana*, and of *Pinus longifolia*, (long leaved pine,) and many others, besides immense specimens of *Rhododendron arboreum*, *Camellias*, *Camphor Tree*, &c. &c.

Coming to the smaller houses, we find No. 3 filled, mainly, with succulent plants, as *Crapulas*, *Mesembryanthemums*, *Sempervirums*, &c. Another with *Gloxinias*, *Gesnerias*, *Achimenes*, &c. Another with New-Holland plants, such as *Epacris*, *Heaths*, and *Acacias*. Another with *Cactus*, *Euphorbias*, and *Stapelias*. Of the cacti, the collection is immense. They are divided into classes, such as *Melocactus*, *Echinocactus*, *Opuntias*, *Rhipsalis*, &c.; and among them are specimens of extraordinary size; some are said to weigh nearly *seven hundred pounds*. And among the Euphorbias are some nearly as large as a flour barrel. Another house is devoted to *Camellias;* another to *Ferns;* another to *Orchideous* plants; which latter now attract a great deal of attention. Leaving the smaller houses, we come to the *Great Palm Stove*, which Sir Wm. Hooker calls "the glory of the gardens;" and so it really is. There is not, I think, in Europe its equal for elegance and completeness of finish; and so, well it may be, for it cost about £40,000, ($200,000.)

It consists of a centre and two wings, (as you will see by Fig. 51.) The whole length 362 feet; the centre is 100 feet wide, and 66 feet high; and the wings 50 feet wide, and 30 high. It is entirely constructed of iron, stone, brick, and sheet glass,—not a particle of wood being about it. The roof is circular. The iron posts are inserted in

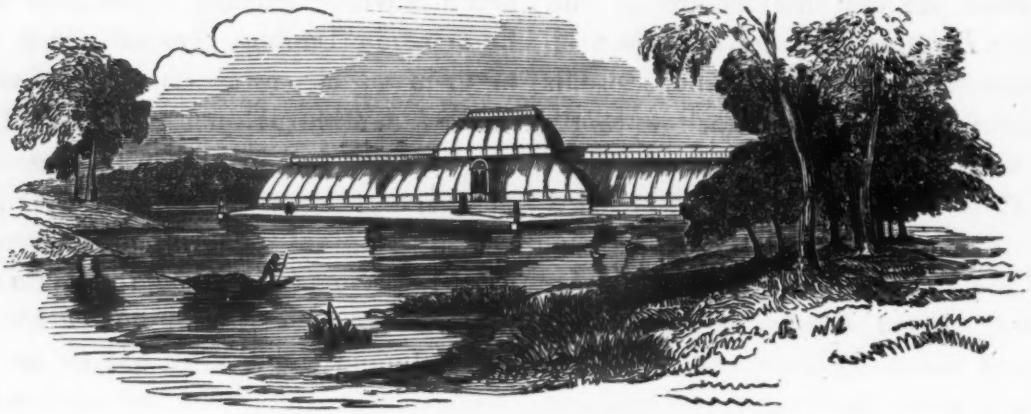

Fig. 51.—*The Great Palm-House at Kew.*

great Cornish granite blocks. It is heated by 12 furnaces, and by hot-water pipes and tanks, carried beneath the floor. The aggregate length of these pipes is about five miles. The smoke from the furnaces is conveyed through a subterranean flue, in a brick tunnel, 6 feet high, (through which one may conveniently pass,) to the distance of about 400 feet, where an ornamental shaft or tower is erected 96 feet high. In the top of this chimney and tower is a reservoir to supply the houses with water; and at its base is a coal yard, and from this the coal is conveyed on a railroad through the tunnel alluded to. In the centre of the building is a gallery 30 feet high from the floor, ascended by a spiral staircase. From this gallery the plants are easily watered over the top; and the taller plants are more easily examined, and appear to much better advantage than from the floor level. It is really a charming sight which you have from this gallery, looking down on magnificent *Palms*, *Sugar Canes*, *Cocoa Nut Trees*, the great *Strelitzia Augusta*, and many rare and beautiful tropical trees, in the most healthy and luxuriant condition.

It affords one some positive idea of tropical vegetation. The plants are all in tubs, so that each one is placed where it ought to be, and can be moved about as circumstances may require. All the pillars in the house are clothed with climbing plants of variety and beauty. A *Thunbergia grandiflora* had reached to the summit. I was so much interested in examining matters in general, that I had little time to note any detail; but I saw a fine collection of *Begonias* in bloom; the beautiful *Pentas carnea*, covered with blossoms; *Goldfussia gypsophylla*, with very pretty light blue flowers; *Plumbago rosea*, from the East Indies, profusely covered with delicate rosy blossoms.

The design and finish of this structure, and the arrangement and condition of the plants now in it, reflect the highest credit on Sir William Hooker, and Mr. Smith, the director and curator of the garden, notwithstanding they have had appropriations of money at will, which can accomplish almost anything.

On one side of the house is a pretty miniature lake, (as you will see in cut;) and the grounds around the house are being suitably laid out in flower gardens, &c. Some 30 or 40 men were busy grading and laying down turf, &c., when I was there. An extensive *Pinetum* is also being formed in its vicinity.

Returning from the Palm-house, we have

a fine view of a noble walk, not long laid out, almost through the centre of the grounds, and intended to be the main path from the entrance to the Palm-house. On each side of this walk is a row of fine young Deodar Cedar, designed to form an avenue. There are, also secondary rows, on each side, of *Junipers*, *Cypresses*, &c., besides clumps of *Rhododendrons*, *Kalmias*, *Azaleas*, *Laurels*, *Bays*, *Laurustinus*, &c. This is a broad and beautiful walk; and in a few years, when the trees have attained size enough to be conspicuous, it will be, altogether, the most delightful promenade about London, with all its beautiful parks and promenades.

I must not omit to mention the *Museum*, in which I spent a very pleasant and profitable hour. It is destined to be one of the most useful and interesting departments. The design is to collect in it all kinds of *fruits*, *seeds*, *sections of wood*, *gums*, *resins*, *drugs*, *dyestuffs*, and all curious and useful products of the vegetable kingdom. The collection is yet comparatively small, having been commenced but little more than a year ago; still, there are a vast number of interesting objects. I noted *Gutta percha*, in a vast variety of manufactured articles, and stages of preparation; *Caoutchuc*, the same; *Wax Palm*, of Brazil, and the wax in a pure state; *Ivory Palm*, *Manilla Hemp*, and articles manufactured from it; *Jute*, the fibre of *Corchorus capsularis*, from India, of which, it is said, one and a half millions of dollars' worth is annually imported to Great Britain; *Pottery Tree of Para*, and specimens of the beautiful ware made from it; *Aerial roots*, of a central American palm, so spiry that graters are made from it; *Ropes*, made of the inner bark of a species of *Hibiscus*; *Paper cloth*, in great variety, made from the paper mulberry; *Vegetable Ivory Nut*,—articles manufactured from it; *Hats*, made at Singapore, of the pith of a tree; beautiful *Paper*, made of an East Indian Daphne, (carmabiana;) *Lace bark*, in various forms, from the *Lagetta tinctoria*; *Dyewood*, such as *Logwood*, *Fustic*, *Barwood*, &c., in a prepared state, beside parts of the trees; *Pens*, of a Chinese reed; many beautiful maritime plants, seeds and fruits, from all parts of the world, preserved; and fine paintings of flowers,—those of the splendid *Victoria Regia*, [the new immense water lily,] are the most attractive. These are but a few of the objects I find on my memorandum; but enough to show that a good beginning has been made.

Connected with the museum is a fine library, but I had no time to examine it. In these hasty notes, I have omitted to mention a multitude of things that interested me much, such as fine specimens of trees and plants, that I met everywhere, in the grounds and in the houses. 20 years hence, under the present skilful and liberal management, KEW alone will be worth a journey across the Atlantic. What immense benefits such an establishment must confer upon a nation!

When do you suppose a move will be made in this country for a national garden? We ought to have one that would surpass all others; and we would, too, if men but loved trees and plants half as much as they do gold and silver. We have no volunteers to go to California to collect seeds and plants, as the English have done; but we have thousands to dig for dirty gold.

P. B.

Rochester, March, 1849.

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Our readers will thank Mr. BARRY, who has just returned from Europe, for his highly interesting account of the Kew Gardens.

We agree entirely with him, in his estimate of the benefit which would accrue from the possession of a great *national garden* in this country. Its annual cost would be a trifling one to the nation; and the introduction of a single new plant, which, like cotton, should become a great staple, would pay the nation a hundred fold for all its cost. We shall return to this subject at some fitting opportunity. Ed.

THE SUREST MODE OF GROWING MELONS.

Nothing, in this country, surprises a gardener from England, or the north of Europe, more than the facility with which, in almost every part of the United States, melons are grown. To go into the markets of New-York or Philadelphia, in the month of August, and see not only the markets filled with melons, of delicious quality, and sold at a few cents each, but besides, those countless sloop-loads, lying at the wharfs, and wagon-loads, standing in the streets; all this gives him the impression of having arrived in a tropical, instead of a temperate climate. In fact, our summers are as warm as those of the tropics; and all fruits or vegetables which demand only a few months of growth to arrive at perfection, succeed admirably in all but one or two of the coldest of the eastern states.

There are two little obstacles, however, to the easy culture of the melon in some parts of the country. The first, is the *striped-bug*, which makes its appearance along with the first two leaves of the young plant, and devours them sometimes in a twinkling; so that, not unfrequently, it is necessary to sow the seed two or three times over to get a regular crop under way. The second, is the shortness of the summers *north* of New-York, which makes the melon crop, grown in the open ground, rather *later* than is desirable.

To guard against both these obstacles, we have found the following simple method, (which is not new to us,) so excellent, and so certain, that we gladly recommend it to all our readers who find their melon crop unsatisfactory, from either of the two causes pointed out:

Provide yourself with a couple of common hot-bed sashes. Choose a sheltered spot, in an open sunny aspect. Take two or three boards, about eight or ten inches wide, and, laying your sashes on the ground side by side, mark their size on the surface of the soil. Then make a frame, (or bottomless box,) by nailing four pieces of board together, so that the sashes will just cover the frame. Set the frame on the surface of the ground, the front (which faces the south,) a trifle lower than the back, so that the water will run off the glass. Level the surface of the soil inside the frame.

This frame should be made ready about the time you would plant melons in the open ground,—say, in this climate, about the first of May. (If you desire an early crop, you may commence ten days sooner.)

The frame is intended, first, to start the melons with a little more shelter than the open air; and second, to guard them against the striped-bug, till they are past the danger of its attack; that is, till they have made two *rough leaves*, when the insect seldom troubles them.

No manure is needed; and, consequently, scarcely any of the trouble of a hot-bed; none of the careful watching, and regular

attention, which a hot-bed demands earlier in the season.

In order to be able to remove the young plants, at the proper time, from the frame to the open hills where they are to grow, the seeds must be sown *on sods*. This is at once the cheapest and the best of all modes of raising seedlings, to be transplanted; because the planting in sod is taken up and replanted with all the roots upon it, which are not in the least disturbed.

Choose any mellow piece of turf, and cut the sods in uniform pieces, six inches square and two or three inches thick. Lay these squares of sod side by side, with the grass side downwards, so as to cover the surface of the soil inside the frame. They should, (to facilitate after removal,) be placed about half an inch apart, so as to be the more easily detached by-and-by. Next, cover them about an inch and a half deep, with some of the richest garden soil at your command. Then take a stick and make *lines* on the surface of the soil, exactly corresponding to the squares of the sods below the soil. This will tell you exactly where to plant the seeds.

As every one of these little squares of sods will form one hill of melons when transplanted, sow the seeds in the soil which covers them accordingly; that is, plant six or eight seeds to each square, and then thin out, when the plants form their rough leaves, to four plants.

We have said that no manure or bottom heat is necessary. The warmth of the sun, indeed, is such that, in bright days, you will have to open the frames for a couple of hours or more, in order not to bring the plants on too rapidly,—keeping them covered at night, and in all unfavorable weather.

About the 20th of May, or as soon as the plants have formed two strong rough leaves, and the season is become warm and settled, prepare the hills thoroughly, where the melons are to grow, by manuring and trenching them deeply. Choose a moist day; and commencing on one side of the frame, slip the blade of a spade or transplanting trowel under one of the squares of sod. As you raise it up, place your hand under it, and you will find that it can be lifted up and carried to any part of the garden, without in the least disturbing the roots of the plants. Now open the surface of the hill, and *plant the sod*, watering it gently, and drawing the earth around the young plants. If done with even tolerable cleverness, they will not feel the removal in the least, (though melons are quite susceptible in their roots, and often fail entirely on turning them out of pots.) The sod itself gradually decomposes, furnishing excellent soil for the roots.

The plants should have been previously prepared for the open air, by gradually exposing them to the weather day and night, (leaving them uncovered with glass,) for a few days previous to the removal.

We find no difficulty whatever with the striped-bug, in this mode of growing melons. The plants are kept covered for the greater part of the time, while they are in the tender stage, and the insects do not find their way to them till the leaves are too rough to be palatable. The cold winds of the early part of the season, which frequently so far check melons, sown in the open ground, as to greatly injure the crop, are by this mode completely guarded against.

A common two-light frame, made in this rough way, will give plants enough to supply a moderate family fully with melons; and those who have experienced any of the difficulties we have pointed out, may make a trial of this mode the present season.

THE JAPAN CEDAR.

Fig. 52.—*The New Japan Cedar, from a Tree six feet high.*

The English periodicals abound with interesting notices of this tree, which, along with the *Deodara*, or Indian Cedar, is decidedly the rage in that evergreen loving country.

The Japan Cedar, (*Cryptomeria japonica*,) which is nearly allied to the Cypress, is one of the many treasures brought home by Mr. Fortune, the Chinese traveller, to the London Horticultural Society. As it grows in the north of China, about Shangai, where the thermometer sinks nearly to zero, and forms large forests on the mountains of Japan, at the height of more than 1000 feet, it follows that it is a hardy evergreen in all temperate climates.

The English accounts of this tree state, that for beauty, and rapidity of growth, it has no rivals among hardy evergreen trees. In the garden of the London Horticultural Society, young trees have grown *four feet* in a single season. It is described by some of its admirers, as the "Queen of Evergreen Trees." Its peculiar beauty is in the *graceful droop* of its branches. It is a great favorite in China for *avenues*, growing up 100

feet high, with a remarkably straight stem, and dense and handsome foliage. The wood is said to be very hard, and elastic, and "withstands the most terrific winds or monsoons which sometimes devastate that country. It is employed in China for the high poles, which are everywhere placed at the dwellings of mandarins, to denote their rank, where it lasts for ages."

The Japan Cedar is said to be as hardy in England as the Deodar Cedar. As the latter tree, even in young specimens, has, in this country, withstood without injury a winter temperature of 6° below the zero of Fahrenheit, we may safely say that the Japan Cedar, or Cryptomeria, will endure the winters of the middle states, and possibly those of the eastern states, in proper situations, i. e., those sheltered from sudden *thawings* in winter.

The soil considered most favorable to the growth of this tree, is a sandy loam, mixed with some peat or leaf-mould. Those inclined to plant it where there is doubt of its standing the winter, will take care that the subsoil is *well drained* when preparing to plant it.

This tree is, of course, yet very scarce in this country. Plants about a foot high may, however, be obtained of Buist, Parsons, and other leading nurserymen. Ellwanger & Barry have also, we notice, imported a few for sale, and for trial, in the interior of this state. Every amateur will be glad to make trial of a tree that promises to add so much to the beauty of our lawns and pleasure grounds; and we hope, in another season, the Japan Cedar, if found quite hardy, will be imported, so as to be afforded at a moderate price in our nurseries.

DESIGN FOR A VILLA IN THE ITALIAN STYLE.

We present our readers, in the frontispiece of this number, with a design for a villa, in the Italian style.

It is a symmetrical and handsome elevation, suitable for an open country, and demands the support of foliage, and picturesque scenery, much less than an edifice in a more irregular style.

The entrance front is that opposite to the view shown in the elevation. The prominent feature in the front, shown in the frontispiece, is the *arcade*, (or large broad "piazza,") so spacious as to form a fine apartment for summer use. Its connection with the saloon, the finest apartment of the principal floor, gives an elegance to the arrangement of this floor seldom found in villas of this size, and peculiarly suited to some of our fine river sites in the middle states.

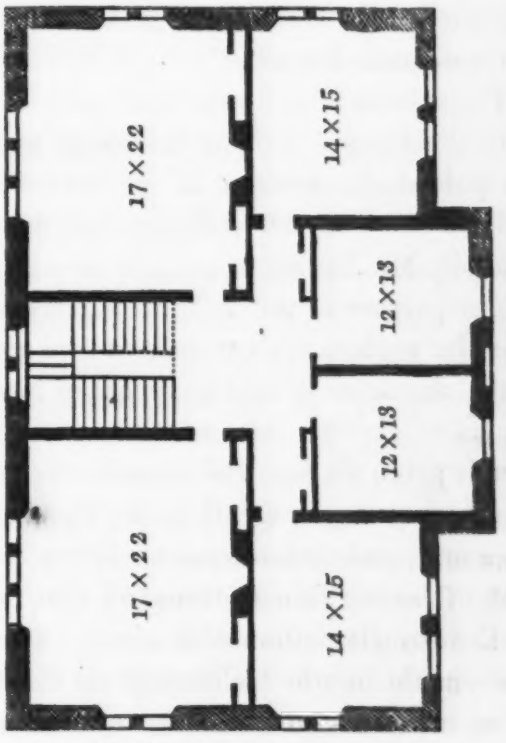

Fig. 53.—*Plan of the Chamber Floor.*

The plan of the second floor, Fig. 53, shows six bed-rooms of good size. The basement story of this house would contain the kitchen and domestic offices.

The almost cubical form of this design, renders it much less costly in construction than a more irregular villa of the same capacity. Having the kitchen, etc., below, it is peculiarly adapted to a site where the grounds are so arranged that every side of the dwelling is exposed to view.

The estimated cost of this design, executed in a substantial manner in brick and stucco, is $8,000.

REVIEWS.

I. The Genera of the Plants of the United States. By Asa Gray, M. D. *Illustrated by figures and analyses from nature.* By Isaac Sprague. Vol. 1, 8vo. 100 plates.

We ought to have noticed this most admirable work at an earlier date; for it is deserving of the highest praise we can bestow upon it.

It is a truly scientific volume, and one that is welcomed by the botanical student everywhere. It has been most favorably received abroad; and Prof. Lindley says, in a notice published lately, "its importance in a systematic point of view can hardly be overrated. Dr. Gray is the first of American systematic botanists."

The volume is most excellently and faithfully illustrated; and no European work, yet published, excels it in the perfection and accuracy of the drawings, which are made by Mr. Sprague.

The purpose of this work, is to place before the student a clear and concise view of the characters of all the genera of North American plants. Along with the description, is given the figure of a species of every genus, showing, in detail, the foliage, fructification, and inflorescence. Every student of botany cannot command that personal instruction from able masters which will enable him to understand all the minutiæ of arrangement and organization, upon which botanical classification and arrangement depend. Such persons will find that clear and perspicuous illustrations like these, are of far more value to him in attaining his object than anything but the direct services of the very best instructors.

The volume now published is only the commencement of the work. The whole will be completed in several volumes, and will form the most valuable work, in the department of science to which it belongs, yet published in America. We cordially commend it to the attention of every botanist and every student of botany. They can add no more valuable volume to their scientific library.

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II. *Proceedings of the National Convention of Fruit-growers, held in the city of New-York, October* 10, 1848. Pamphlet, 8vo. 52 pages.

This long delayed report of the convention, held at New-York last autumn, is at last published. The delay was, we believe, owing to its having been under the disadvantage of an absence of the secretaries (under whose supervision it has been published,) from New-York, where it was printed; so that it has been carried through the press at a very slow pace.

As almost every reader of this journal will probably be in possession of the report before this number reaches them, we need not enter into any extended examination of its contents. So far as regards the busi-

ness accomplished at this convention, our pages have sometime ago placed an account of it before our readers.

Its principal value to most of our readers, however, lies in the comparative opinions, which it contains, respecting the value of different varieties of fruits cultivated in this country. As this convention embraced the largest assemblage of the best practical amateurs, pomologists, and fruit-growers, ever assembled in the United States; and as the discussions on fruits occupied two days, a great deal of highly valuable information was elicited. Every person, therefore, who is engaged in the culture of new or old varieties, will find much to interest him in the report of these discussions, relating, as it does, to the success or failure, the merits or the faults of a considerable part of the varieties now most in repute in this country.

Those who were not present at this convention will find, even in the brief account given of these discussions, abundant proof of the value of such meetings to the country at large.

The universal feeling at this convention, however, was, that the good work was only commenced last October. To achieve what this convention proposes to do, requires not only the ablest collective talent in the country, and time to perform the necessary labor, but, more than all, a broad and suitable *foundation*, upon which these labors shall rest. The leading motive of action, therefore, at this convention, was to lay this foundation, by a systematic and thorough organization, and by the appointment of the most able committees in almost every state in the Union. Now that this has been done, and the whole machinery of a really national association is at work, we may confidently hope for the most desirable results, at the next session, which it is within the province or the ability of such a body to accomplish.

DOMESTIC NOTICES.

Pomological Conventions.—*A. J. Downing, Esq., Editor Horticulturist*—In the March number of the Horticulturist appears an editorial article on the subject of "Pomological Conventions," which, upon its face, is so manifestly unfair, in regard to the acts of the New-York State Agricultural Society, touching its proceedings connected with the session of the "North American Pomological Convention, in September last, at Buffalo, that, reluctant as I am to appear in any public matter where a controversy is involved, I am induced to ask you, as a mere matter of justice, the insertion of this communication in the Horticulturist.

As the article to which I allude is recorded in the columns of this periodical, it is unnecessary to quote any portion of its language; but as the entire drift of it is an apparent reflection upon the *legitimacy* of the Buffalo Pomological Convention, you will permit me to give a brief chronicle of the doings of the N. Y. State Ag. Society on the subject of fruits, for the past three years, that the public may judge whether it has so far travelled out of its proper range of duty as you would premise.

That Society is an independent body, and, I take it, has unlimited discretion as to the selection of what sub-divisions of agriculture it will devote its attention. In view of the disorderly condition of the fruit cultivation in this state, and of inducing some reform into a system of intelligent propagation of the best fruits among our rural population, in January, 1846, at the annual meeting of the Society in Albany, a Pomological Committee was appointed to report a select list of the different fruits to recommend for cultivation, and report thereon at the next annual meeting. This is the first attempt made in any American society within my knowledge, to introduce a reform into the classification of our domestic fruits, and to select from them a *circle* of choice kinds for cultivation. At the next annual meeting of the Society in January, 1847, that duty was discharged by the committee, in part, and the fruits recommended approved by the Society, a list of which will be found in its volume of Transactions for the

year 1846. The committee was continued by the Society, who, in January, 1848, made another report, which is published in the Society's Transactions for 1847. A short time after that, the executive committee of the Society resolved to call a Pomological Convention, to meet at Buffalo in September, 1848, to be composed of all such, either in the state of New-York, or from *other states*, as should think proper to attend—as much a *national* convention as any that has been held since, and having no other connection with the State Agricultural Society or its officers than such as common courtesy demanded. That convention met, and was composed of a numerous body of professional pomologists, and amateurs from at least half the states in the Union, although some prominent gentlemen abstained from giving it the light of their countenance, for reasons which have been pretty thoroughly developed through the proceedings of the "National Congress of Fruit-Growers," and the columns of the Horticulturist since.

Notwithstanding the *supercedeas* served upon the N. A. Pomological Convention by the committes of the "Congress," and their reiterated assertion of its dissolution, I cannot discover why, in the executive committee which that body appointed, its existence is not as apparent as when in actual session, and also, why that committee are not in the full and proper exercise of all its functions, until they declare their own dissolution, or their principals do it for them. So much for legitimacy and vitality.

As to whether the gentlemen appointed to act on the committee of the N. A. Convention, choose to do so or not, that is a matter of taste and inclination, purely within themselves; or whether that body may ever choose again to reassemble, will depend upon their own volition. Before adjournment, however, it *did* appoint another meeting to be held at such place as the next Show of the N. Y. State Ag. Society should be held; and I doubt exceedingly whether any resolution or mandate issuing either from another body of the kind, be it "Congress" or individual, can summarily *sponge* out its appointments. The simple truth is—and it cannot be controverted—that the body which styled itself the "North American Pomological Convention," called by the N. Y. State Agricultural Society, was the *first body* of the kind having "an odor of nationality" about it, which assembled in our country.

Now, how stands the matter with the "Congress," which its advocates contend to be the only *existing* organized pomological national body of the kind. Why, thus: and I intend no imputation upon the motives actuating the gentlemen who got up that affair—the American Institute of the city of New-York—a very valuable association, who seem to be possessed with a sort of ubiquity in all matters of patronage, appeared to take the initiatory of the "Congressional" movement some time after the action of the State Society in calling the "Convention," and apparently for the purpose of overslaughing its action in that branch of its labors, which one would think were quite as legitimate as those of mechanics and arts, to the improvement of which the efforts of the Institute were originally intended. That I am warranted in this remark, I need only say, that the leading gentlemen of the "Congress," although specially invited by the proper committees, did not attend the Buffalo Convention, but ever since its meeting have lost no opportunity in disparaging its action and continuance, and of exalting their "Congress" at its expense. With the comparative utility of the proceedings of the two bodies I shall not interfere. The public will judge for itself. But that the "Congress" was or is any the less an offspring of *another* institution than the Buffalo Convention, is sufficiently significant from the title page of its published "proceedings," a part of which reads thus:—"Held in the city of New-York, October 10, 1848, *under the auspices of the American Institute.*" The great effort of the "Congress" appears to be to place itself in the foreground as the *only* body of the kind *now* in existence, having a national character; with how much justice, the premises detailed will show.

A word in relation to an allusion in the March article of the Horticulturist, personal to myself, and I have done. I quote from page 424:—"We will gladly assist, in our humble way, every effort for horticultural progress in our State Society, *so long as its plans are kept within their proper limits*, where we feel *certain*, under the *new board of officers*, they will be confined." For one, I trust the State Agricultural Society will feel duly grateful to Mr. Downing for his patronizing grace to its destitute situation, and that the unfortunate peccadilloes of its late administration in treading on the forbidden ground of pomology may meet with the compassionate indulgence of an outraged community! But I am forced to lament my convictions that its "*new* board of officers" will be quite as prone to discharge their duty to the great agricultural interests of the state, even to the promotion of their pomology, as their predecessors have been in times past, albeit under this threatened displeasure.

In plain English. The whole article in the Horticulturist to which I have alluded, displays an overweening solicitude in the writer to appropriate the entire pomological rule and action of the country to himself and a few others, and that no body emanating from any source than such as they may approve and control, let their services and aims be as beneficial as they may, shall be recognized—so far as this subject is concerned. *Lewis F. Allen, late President of the N. Y. State Ag. Society. Black Rock, March* 9, 1849.

Remarks.—"In plain English," the Buffalo Convention was an especial hobby of Mr. Allen's, and we see he is a little out of temper with us be-

cause we are only willing to give it credit for having been an excellent *State Convention* of fruit-growers.

Of the "legitimacy and vitality" of the Buffalo Convention, as a State Convention, we have not the slightest doubt. And we are confident, not only that it was productive of much good, but that such a convention, held every year, at the State Agricultural Fair, will be of the greatest advantage to the community.

But our correspondent has not in the least proved that it was a national convention. He has, on the contrary, admitted that it was called solely by the N. Y. State Agricultural Society.

Now, we understand the nature of a convention to be this: a convention for local purposes may be called by the inhabitants or authorities of a town or village; that is a town convention. A convention for state purposes may be called by the authorities or inhabitants of a state; that is a state convention. But if the proper authorities or individuals in various *states*, for some purpose of national interest, see fit to call a convention, that is properly a national convention.

Now, the Buffalo convention either was a national convention or it was not. If it assembled pursuant to the call of a state society only, it was clearly a state convention. And this Mr. ALLEN, then President of the society, declares to be the fact. That the presence of several distinguished pomologists from other states, who were partly attracted to Buffalo by the great Agricultural Fair, gave the Buffalo convention an "*odor* of nationality" we admit, but it was only an odor.

The New-York convention, or as it is now called, "the Congress of Fruit-growers," on the other hand, was publicly called by the authorities of at least three different states; among them the two oldest Horticultural Societies (Mass. and Penn.) in the country; the call was avowedly for a national convention; and therefore we cannot but think it the only national convention of fruit-growers now in existence.

Mr. ALLEN alludes to the executive committee of the N. A. Pom. Convention, appointed at Buffalo, and from whom, we are told, the late anonymous circular from Albany purports to come. Will he tell us who compose this committee? We find no such committee in the published proceedings of the Buffalo Convention, and if such a committee really exists, why will they not sign their names to their circulars?

Our readers do not need any remarks from us touching the dictatorial position which our correspondent imagines us to assume with regard to pomology or pomological progress in this country. They, at least, know us well enough to feel that our only object in our remarks on Pomological Conventions was to point out how much, besides state conventions, the country at large requires another, of a national character; and that there can, in the nature of things, only be *one* body whose authority will be respected. We do not care the value of a crab whether such a convention meets in New-York or Buffalo, but we must discharge our duty nevertheless in pointing out the difference between a really national and a really local association.

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SPECIAL MANURES FOR VEGETABLES. Two or three correspondents, since the publication of our remarks on manures for fruit trees, have expressed a wish for more light regarding the chemical composition of some of the leading vegetables.

They complain of the great difficulty of growing certain kinds of vegetables—beans, for example—in small gardens where the soil has been cultivated a long time, and where, from not being able to change such crops to new soil they fail in growing them, notwithstanding a liberal supply of animal manure.

What these vegetables want is a supply of *mineral manures*, and in order to know how to apply these most judiciously, our readers must know something of the chemical composition of each vegetable. We therefore give the following abstract of the inorganic elements which enter most largely into the composition of such vegetables. It is from the analysis of the ashes of these plants by DE SAUSSURE, SPRENGEL, and other chemists:

	Potash.	Soda.	Magnesia.	Lime.	Phosphoric acid.	Sulphuric acid.	Silica.
Peas,	35.	10.	6.	3.	34.	4.	1.
Beans,	38.	11.	9.	5.	31	2.	0.
Celery,	22.	0	5.	13.	15.	5.	3.
Onions, (bulb)	32.	8.	2.	12.	..	8.	3.
Do stalk,	13.	14.	..	25.	..	16.	19.
Cauliflower,	34.	14	2.	3.	25.	11.	1.
Cabbage,	31.	15.	3.	23	10.	12.	2.
Potato, (roots,)	48.	28	4.	3.	4.	6.	1.
Beet, (root,)	24.	53.	2	4.	2.	2.	1.
Carrot, (root,)	53.	13.	5.	9.	7.	4.	2.
Parsnep, (root,)	49	16.	6.	11.	2.	4	3.
Radish, (root,)	21.	...	3.	8.	40.	7.	8.

We have avoided giving the *decimals*, as we only intend a sufficient sketch of the analysis to furnish practical hints—and the approximation is sufficiently accurate for this purpose.

The information which the practical cultivator will gather from the foregoing, is something like this; that *potash* enters more largely and uniformly into the composition of vegetables than any other of these elements, and hence that *wood ashes* are among the most generally useful applications to the kitchen garden. Next to this, common soda (which may be had very cheaply at the wholesale druggists,) is highly important. *Phosphoric acid*, (which may be furnished in the shape of bone dust,) is also an important element, as well as *sulphuric acid*. Lime and sulphuric acid, also considerable constituents, may be easily supplied by manuring with plaster (gypsum.) *Silica* for the most part enters very slightly into the composition of the above vegetables, with the ex-

ception of onions, of the ashes of which it forms 19 per cent. Coal ashes ought to be as beneficial to onions, therefore, as to corn, both of which largely demand this substance, of which coal ashes are mainly composed.

To raise good peas, a soil should contain plenty of potash, soda, and phosphoric acid; for beans rather more potash is necessary; celery demands potash, lime, and phosphoric acid; onions soda, lime, sulphuric acid and silica; cabbage, a large proportion of lime; potatoes, chiefly potash and soda; beets the same—but most of soda; carrots potash and lime; and radishes a large proportion of phosphate.

An easy way of applying potash or soda is to dissolve about ten lbs. in a hogshead of water, and sprinkle thoroughly a load of crude peat or swamp muck. This will reduce the peat to the condition of an active manure, and then if used precisely as manure, it will furnish a proper supply of potash and soda for such vegetables as require it.

It is owing chiefly to the want of potash in the soil, that beans and other vegetables requiring *new* soil, refuse to yield good crops in old gardens. In such soils the potash is exhausted by long cropping.

The judicious use of animal and saline manures, will enable the kitchen gardener not only to raise much larger, but much better crops of vegetables than by the ordinary course of cultivation.

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Bedding out Flowers.—As the first of this month is the season for preparing plants for bedding out, I venture a few remarks on this head.

Every good gardener, whether amateur or practical, knows that at the present day all the finest flower gardens depend mainly on half hardy or tender plants for their most lasting and brilliant effects. Such plants as verbenas, petunias, (I mean the fine sorts,) scarlet geraniums, salvias, penstemons, and the like, when planted in masses or small beds, give a richness and beauty to the flower garden which annuals and perennials can never compete with.

As I observe many persons are ignorant of the method of treating these plants, and usually keep a few in their green-houses, and thence turn them out early in May in their borders, without any *hardening*, whereby they greatly suffer, I will detail my practice for their benefit.

I mean now to give, not the best way for the plant grower on a large scale, but for those who, like myself, have a small collection, and wish to have their gardens handsome in summer, without giving much room to the necessary plants in their green-house in winter.

I suppose, then, that you have the mother plants growing in your garden in summer. About the last of August you take some medium sized pots, and stick a dozen cuttings in each, of all the sorts you wish to preserve. The old plants may then be left to their fate, and these "store pots" will occupy but little room in the green house. They must be watered sparingly in winter, and must have plenty of light, so as to preserve them in a healthy state, not liable then to dwarf off.

About the 20th of March prepare a common frame, in a sheltered sunny place. You do not need anything but glass; manure, as in a hot-bed, is superfluous, as the glass will give heat enough, and you will cover the frame at night with mats or straw, to keep the frost out. At this time prepare some good, rich, light soil, with plenty of fine charcoal and rotten sods mixed in it, and turning the rooted cuttings out of the store pots, repot each singly in small pots, and put them in this frame. The frame should be kept pretty close till the plants have made new roots and commence growing nicely, when air should be freely admitted mid-day, when the sun shines. As soon as the weather becomes warm, expose them still more, until for a week or ten days before you wish to set out the young plants in the borders, (which will be about the 15th or 20th of May,) the sashes should be left off day and night. In this way, the plants will have much more health than if kept in the greenhouse till wanted, and will not be at all affected by the change from under glass to the open air, which often ruins half hardy plants.

I cannot conclude without recommending to your readers *Penstemon gentianoides*, and its varieties, as plants for massing. It is beautiful in foliage, and very rich in the color of its blossoms. Yours, *An Amateur Florist. New-York, March.*

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Pear and Quince Stocks.—*Dear Sir:* I have been all the day engaged in my pear nursery; and having seen the result of an experiment made about this time last year, I give it you for the benefit of whom it may concern. I received a lot of seedling pear stocks last season; and when planting them out, I concluded to try if the roots would not grow. I therefore took off the tap root about four inches long, and planted it with the larger end just even with the surface. The cuttings were generally about the size of a swan quill. About one-half grew, and are larger than two year old stocks, received from Rochester, N. Y. Some of them would measure three-fourths of an inch in circumference, and three feet high.

When putting out grafts last year, I made use of the upper part of stocks as a temporary stake to hold a label, until I could put up stakes with numbers. The stakes were put in, and the pear switches left. I find to-day about two-thirds of them growing, with fine roots, and some few are nearly three-fourths of an inch in diameter, and five feet high.

Quince stocks received from western New-York are about the size of a goose quill,—but not a large one either. This induced me to measure mine; these were put out cuttings last January, and to-day measure one and a half to three inches in diameter, and three to six feet high. I have

never seen northern quince stocks before, and thought a freer grower was used than we had; but now, I shall not think of ever paying freight for such puny fellows. Indeed, cuttings prepared by me this evening, will be larger next January than these small stocks. I shall set to-morrow 1000 cuttings, and hope to have budded before October 1500 pears on quince.

I am satisfied that when pears become better known, that there will be an immense demand for the fruit, and that dwarf pears will be sought for.

I am almost afraid to say, that I have now here, somewhere about 170 varieties of the pear,—60 of them being upon quince, (50 varieties on the quince, received a short time only.) But when I say to those who are opposed to so many varieties, that my object is to *test* the varieties not adapted to the south, I am in hopes they will let me pass.

I do not know any place south of 36 degrees, where 20 or 30 varieties of the pear are fruited; therefore it is impossible to form a correct opinion. I will have some ten or twelve to fruit this season, and probably double that in 1851; and in 1852, all my dwarfs and an increase of standards. I intend to have 400 varieties, and to work 200 upon quince. I can afford to do all this, as I can sell enough to pay for all expense: and my labor is of no sort of value; for were I not at that, I might be in mischief.

I have now sold peach trees enough to pay for investment; and I am greatly indebted to my southern friends, and I hope the country will be again benefitted; for where 150 varieties of the peach come into bearing, I should think that there would be some choice varieties meeting us, especially as we have the *peach latitude*—deny it who dare!

I have some 20 or 30 seedling grapes, from Texas seed; the seed sent me by Mr. STEWART, of Montgomery, Texas. These same grape-vines are the hardest cases I have yet had. They grew the first year three to ten feet,—many of them in pots. I turned them out in a border, and headed them down, and they have grown none at all. I will try them this year and quit. I am, dear sir, sincerely yours, *M. W. Philips. Edwards, Mississippi, Jan.* 24, 1849.

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CAULIFLOWERS.—I have been eating delicious cauliflowers all winter, thanks to your directions in the Horticulturist. I sowed seed for the winter crop about the middle of May, and when winter approached I lifted the plants in a damp day, with a little earth attached to the roots, and set them on the floor of a warm cellar, under one of my out-buildings. They were most of them not even showing the least signs of flowering when they were put in the cellar, and I confess I was a little incredulous as to their "coming to anything" in their winter quarters. But they soon began to form blossom crowns, and I have cut the whitest and most delicious cauliflowers from these plants since last December that I have ever tasted. As this mode of treating cauliflowers is not generally known here, I have quite astonished my neighbors by the sight of such a fine winter vegetable in abundance.

I obtained seed of the *Late Walcheren* variety, as you advised, at Thorburn's, in New-York. It is certainly the best cauliflower I have ever grown. Yours, *X. Y. Z., New-Jersey, March.*

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METEOROLOGY.—Our readers will remember Dr. COMSTOCK's theory, in a former number, respecting the influence of railroads and telegraph wires on thunder showers, &c. He has favored us with the following answer to his inquiries, received from an observer in New-Hampshire, to which we cheerfully give place. ED.

DEAR SIR—I noticed an article in the Horticulturist for October, '48, from you, on the subject of "Meteorology." I have looked in vain for a reply in the two succeeding numbers, and now take the liberty to say a few words on the subject, by making a few plain statements.

1. I live in the extreme south part of this town, four miles north of the Merrimack river at Lowell, and four miles east of said river at Hudson on the east and Nashua on the west, or northwest.

2. The Boston and Lowell railroad was finished in 1835.

3. We have not had a single occurrence of violent thunder shower, of the old fashioned stamp, since that time, with one or two exceptions, that happened before the Lowell and Nashua railroad was built; and those came from the northwest, and were more out of the influence of the Boston and Lowell road.

4. Previous to 1835, it was very common for the lightning to strike trees, buildings, and other objects, and as often as once a year, or nearly so, it would strike on the farm I now occupy.

5. Since 1835, it has struck two trees only on my farm,—one in 1837, and one in 1846.

6. Showers rising in the west have all the appearance of those of former times, until they get in the vicinity of the Nashua road, when the lightning and thunder almost entirely cease, and in some instances the shower has been entirely broken up.

7. We have had more severe dry weather since 1835 than formerly.

8. We have had later frosts in the spring and summer, and earlier frosts in the autumn than formerly.

9. I have made frequent inquiries about the showers at the north, and found that people there did not observe anything different from former times.

10. There are no telegraph wires on the above named roads at present.

11. I have advanced the above ideas through the columns of the Boston Cultivator several

years since, and have had for answer more ridicule than reason.

They are true, however, and cannot be controverted. Yours respectfully, *B. F. Cutter. Pelham, N. H., Feb.* 5, 1849.

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Orchideous Plants.—We have shown in our former letter that a majority of the Epiphytal species inhabit the branches of trees, and succeed best when attached to logs or billets of wood when subjected to artificial treatment; others, on the contrary, seem to do best in pots, and others still, are peculiarly well adapted for basket culture.

If grown in pots, the following is the soil recommended in the *Horticultural Magazine*, (1847:) For the Epyphytal species in general, turfy peat in small lumps, mixed with broken pieces of flower pots, or of charcoal; some persons employ a mixture of turfy and old rotton wood. Others use sphagnum moss, cut rather small, and suffered partially to decay. All these are suitable to the plants; and it is not material which is preferred. Indeed, this is a matter on which we find no unanimity among cultivators. Mr. Paxton says,—"In a word, I recommend sphagnum, mixed with potsherds, in preference to anything I have hitherto seen used for the growth of orchidacæa." Mr. Appleby, a gardener of note, says the soil he used was one-third turfy peat, roughly broken in pieces of different sizes, (the largest about the size of hen's eggs;) one-third chopped pieces of poplar or willow wood, about the size of garden beans; and one-third chopped sphagnum, (swamp moss,) well mixed together. We find another letter of his, quoted in Mr. Lyons' work on orchidacæa, published in 1845, where he says he used the under stratum of sphagnum, which has become almost peat. These, he says, make a light open compost, which appears admirably to suit the plants, as they root in it freely, and thrive to my satisfaction. Any of these we would suppose to be a good compost; but sphagnum is so retentive of moisture that it will be difficult to preserve the roots in winter.

What we have recently used, and would recommend to your readers, was the top sod, (or turf,) of elevated hillocks, frequently met with in peat bogs, matted together with the roots of heath, whortleberry, and various plants, cut about two inches deep, sometimes more or less, but always avoiding the under stratum, and every part destitute of fibre, mixed with a little charcoal. Our plants did better in this than in any material we saw used. The turf, cut thin, will be always light and open for the roots to run in; and having so much fibre, it requires less drainage than sphagnum. If cut in dry weather, in the summer or autumn, and kept in a dry shed, it will be ready for use at any time.

Previous to potting, it is best that the plants should not receive water for a few days. Probably the most important point to be attended to, in this operation, is, that the pots should be *well drained*. To accomplish this effectually, the pots must be filled two-thirds with potsherds, or charcoal; or it may be accomplished by inverting a smaller flower pot inside, and filling it round with charcoal, or broken crocks. (When inverting a pot for this purpose, it is necessary that either a bit of broken crock be put under one side, to keep the aperture open, or a piece broke off the pot, to accomplish the same effect.) Charcoal is perhaps preferable.

A perfect system of drainage is absolutely necessary; for, although all the species thrive best in great moisture, at certain periods of the year, still they will not succeed if water is allowed to become stagnant about their roots. It must, therefore, have a free passage to run through the pots. In potting, the plant may be placed about three inches above the rim of the pot, on the surface of the material on which it is to grow, setting its roots between the lumps of peat, and making the plant fast with pegs, to prevent its falling or being disturbed. As soon as the plant makes its roots, they take firm hold of the peat, and will quickly fix themselves. Among those best adapted for basket culture, are *Stanhopeas* and *Acinetas*, which direct their stems almost perpendicularly downwards, (like the tubers of the arrowroot,) instead of upwards; also those with pendant flower stems, as *Gongoras* and *Acroperas*, and others of naturally drooping habits, as some *Ericas*, and many *Dendrobiums*. Baskets for this purpose are either made of wire or oak branches, about four inches deep. They should first be lined with flakes of hypnum, or some similar moss. The turf already recommended is then broken in convenient sizes, and with a little charcoal made sufficiently high to raise the plants above the rim. Mr. Appleby, already alluded to, says, in his fourth letter, he raises the Stanhopeas considerably above the rim of the baskets. This, we believe, a bad method for general adoption; for when the plants are placed on a large mass of compost, the flower stems, which protrude perpendicularly downwards, as before stated, are liable to damp off; and the flowers of those that make their way good are so small, and the stem, (owing to the depth of compost it has to pass through,) is so short that its beauty is greatly impaired. Besides, many species of this genus naturally produce much shorter stems than others; and if Mr. Appleby's system be adopted, these will perish ere they can reach the light. Consequently, the anxious cultivator may be for many successive seasons disappointed of seeing what he would expect to be a fine and showy species, or a new and rare variety.

We find some growers recommending *Stanhopeas* to be grown in pots; but this is a practice that cannot be too strongly condemned. We have more than once, when repotting Stanhopeas, found their flower stems coiled round the pot, till they became at length exhausted, and perished unseen.

We also have often had occasion to break the side of *Stanhopea* pots, to preserve the flower stems. We see no reason why *Stanhopeas*, like other Epiphytal species, should not be grown upon blocks. Indeed, we have grown the beautiful *Stanhopea tigrina* in this way, to as great perfection as it would attain in its native (Mexican) forests. We grew Stanhopea aculata in a similar way.

It does not follow, because found in open glades, that these orchids should be attached to blocks of wood, or suspended in the atmosphere, as Mr. APPLEBY has suggested. It is in such situations that most of our finest terestrial orchids are found, and must be treated according to their nature. In those elevated districts are also found many truly Epiphytal species, growing upon single trees. But they are much more abundant in the low and humid forests, where shade and moisture predominate, as suggested in our former letter. They all require the same general treatment, except that those found in the former locality may be subjected to a lewer temperature, less humidity, and a greater exposure to the rays of the sun; but these we would not recommend to too great an extent. For whatever elevation they grow in, or however much exposed to a tropical sun, they enjoy a free atmosphere, not like what they would be subjected to in many of our ill ventilated houses; and if we but patiently consult the laws of nature, we will readily perceive how wisely she provides for her children in all situations. Even in the tropics, where the solar rays are most luminous, the gigantic trees will, (as in temperate countries,) expand their foliage in the warmest season of the year, and afford partial shade to the more delicate orchids that inhabit their branches. They may be located in our houses so as to receive more light than the majority of the plants. To achieve this end, or rather, to imitate nature, we grew many species of *Catasetum*, *Mormodes*, *Myanthus*, &c.; (many of which are often found on single trees in open glades,) on the top of large blocks, fixed in stands, as described in our last,—a situation in which they seemed to delight, firmly attaching their viscous roots to the rough bark of the wood, from which they produce numerous secondary or lateral rootlets, which extended in every direction, as if in search of food. In this elevated location, they shared the same general treatment, *shade* and *moisture*, as the whole collection; but being nearer the glass, they consequently had more light, and dried sooner.

We promised in our last to refer particularly to some American, or Brazilian species. Among the multitudes of orchids that inhabit those countries, we believe the *Laelias* and *Cattleyas* worthy of precedence; not merely for the large size of the flowers of some, nor the deep crimson or delicate lilac of others, but the transparency of their texture, the exquisite clearness of their colours, the graceful manner in which their broad, flag-like petals wave and intermingle with every breeze, and the simplicity of their treatment. Of the genus Laelia, there are several species, of which the *Laelia superbiens* is the finest yet known. This stately Epiphyte was first found by Mr. HARTWEG, collector to the London Horticultural Society; and also by Mr. SKINNER, who speaks of it thus: "Saw you ever anything like this? This most magnificent of all plants, I have sent several times. It flowers in November, and in some instances bears from 18 to 20 flowers on the stems, from 9 to 12 feet long. *Chantla*, its native habitat, is very cold—55 to 65 degrees; and in Costa Rica, where it is also found, the temperature is 68 to 70 degrees generally."

Mr. BATEMAN, an extensive English grower, and author of a superb work on the orchidaceæ of Mexico and Guatemala, says that this plant is found growing out of the crevices of the rocks, in the cooler districts of Guatemala,—chiefly in places that are sheltered from the keenness of the northern winds. In such situations, the pseudo bulbs sometimes grow 22 inches high, and have flower scapes 4 yards long, crowned with upwards of 20 flowers; but this immense size is not common. When the plants grow exposed to the northern breeze, they are very small, and have an imperfect, stunted appearance. In England, the flower stems grow about 6 feet in length, and the pseudo bulbs usually about a foot. This species was in many English collections a long time before it flowered. The cause of their failure, in this respect, may be justly assigned to the fact, that when first introduced the plants were kept in high temperature, and a close, moist atmosphere. These conditions being most favorable to luxuriant growth, no doubt prevented the production of flowers; and it was not till the plants were subjected to a low temperature, that they showed any indication of bloom. It grows best, tied to a block of wood, and suspended from the roof. I am, sir, respectfully yours, *M. C. Newburgh, January*, 1849.

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THE GHENT GLADIOLUS. This new bulb, (*Gladiolus gandavensis*,) is a great ornament to our flower gardens from July till October. The hue of the flowers is a rich orange scarlet, or *fire color*, the plant very vigorous, and suits particularly well our warm summers, giving us gay blossoms when the garden most needs brilliancy. Yours, *An Amateur Florist*. [*Gladiolus gandavensis* is worthy of our correspondent's commendations. We received a dozen bulbs last season from Mr. Van Houtte, of Ghent, which bloomed superbly in our garden for six weeks, and were greatly admired by all who saw them. ED.]

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BURNT SODS.—*Dear Sir:* I agree with you fully in the excellent effects of burnt turf for enriching borders for roses. I prepared a wagon load last spring, and used it plentifully, taking away the top soil about my established plants, and found it to add greatly to the verdure of their foliage

and the brilliancy of their blossoms. Yours, *I. W. S., Philadelphia, March* 16, 1849.

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DISCUSSION ON MANURES.—We find reported in the Boston *Evening Transcript* a highly interesting discussion on manures, which took place lately at the legislative agricultural meetings, held at the State House. The remarks of Col. WILDER, who occupied the chair, are so much to the point that we shall quote them at length:

"The president introduced the discussion, by saying that the subject was one paramount in importance to any other that concerns the cultivator of the soil. It is the great preliminary movement on which the farmer founds his expectations of a bountiful harvest, the sheet anchor of his hopes. Although he might plough deep and well, yet, without some correct knowledge of the substances he uses to fertilize the seed he buries in the earth, his success is almost as uncertain as the mariner's, who would plough old ocean without chart or compass.

"A soil of inexhaustible fertility, he said, was an imaginary idea; and although mother earth would yield kindly to the full extent of her ability, yet the time would come, sooner or later, when even the rich prairie lands of the west, would demand a return of the fertilizing elements which have been abstracted by vegetation; it is a matter, then, of vast importance, to learn how these materials can be procured at the cheapest possible price, and in a form to be applied with the greatest economy.

"Mr. WILDER proceeded to state that he was no chemist, and made no pretensions to farming, except as it is connected with gardening and the horticultural art.

"He had made some experiments with manures, some of which he would relate: He did not wish to be understood that he undervalued stable or barn-yard manure, but such as was purchased from the stables of the city, by the cord, when deprived of straw or decomposed, was in reality only half or three-fourths of a cord. To obtain a real solid cord of manure, equal in quality, and at less price, had with him been a great desideratum, and he believed he had succeeded, by making a compost of meadow muck, crushed bones, and leached ashes, in the following proportions:

"One cord of meadow muck, having been exposed to the action of air and frost at least one year, ...	$1 50
Twelve bushels leached ashes, ...	1 20
Six bushels crushed bones,.....	1 50
Labor, ...	30
Total cost per cord,.....	$4 50

"The bones and ashes were mixed together while the latter were in a damp state, and when fermentation had taken place, these were incorporated with the meadow muck. In this condition the mass should remain until heat is generated again, when it will be fit for use.

"He had found this compost equal to any stable manure for root crops, grass land, gardening purposes generally, and for fruit trees. For the last two years, he had mixed his stable manure with the compost, and also had added to it one-eighth part in bulk of fine refuse charcoal from the depots of venders. This can be purchased at five dollars the cord, delivered, and does not much increase the cost above named.

"Mr. WILDER said, that since Liebig first promulgated his opinion as to the wonderful influence of charcoal in rooting cuttings of plants, and as a component part of soils, experiments have been making verifying its importance. He also informs us, that the volatile gas which arises from our stables and manure heaps, and descends in the rain and snow, and which we call *ammonia*, is the great fertilizer of the earth. To secure this subtile element, Mr. W. had added charcoal to his compost heaps, and as he thought with great advantage. It is very durable if not indestructible; a substance of great porosity, and we are told, he said, by chemists, that it will absorb 90 per cent. of its bulk of *ammonia*, but its beneficial effects are supposed to arise from its power of retaining this volatile gas, and yielding it up only as it is washed out by rains, or as the vital force of the root searches for food. He did not consider it a fertilizer in itself, but that it was a medium of administering nourishment, having used it with good success for green-house plants for many years.

"Mr. WILDER said the compost (with the charcoal and stable manure combined,) was the best he had ever used as a general manure. On fruit trees, its effects were remarkable.

"In the spring of 1847, he planted a square in the nursery with imported trees from England, this compost having been spread and ploughed in. These trees were from four to five feet in height, and although it is not usual for trees to make a large growth the first year, they acquired branches of three to four feet, and were so handsome as to command $1.25 each for a row of fifty trees, without any selection.

"In June last, which is very late to set out trees, he prepared another square on rather poor land, and planted trees just received from England upon it. The soil had been thrown up to the frost the previous winter, and the compost here was applied in the trenches, near the roots. Mr. Wilder exhibited two shoots, which had grown from those trees since they were set out in June. The shoots were four feet in length, and the wood hard and well ripened.

"It is stated that on old beds, where charcoal had been burned ten years before, the corn and wheat to this day are uniformly better than on the adjoining lands, being more vigorous, of a darker green colour, and producing larger crops. A farmer remarks, 'I sowed fine charcoal over

my grass land in strips; these strips have increased one-half in product, and without any apparent diminution for five years.'

"Mr. WILDER mentioned several instances, showing the beneficial effects arising from the use of fine charcoal, one of which in the state of New-York, was an extraordinary product of wheat crop.

"Says an English gardener, 'my compost consists of nothing but loam and charcoal, without a particle of manure of any sort; and I never saw the plant that did not delight in it, and every plant under my care, has some charcoal used about it.'

"As a deodorant or disinfector, Mr. WILDER related the following experiment, which appears in a late English paper:

"Two fluids, and charcoal from peat, were prepared especially by different chemists for the purpose of depriving night soil, stable, and pig stye manures of their offensive smell—the fluids both proved ineffectual, but the charcoal not only entirely and instantly neutralized and destroyed the offensive odor, in each of these substances, but also deodorised the fluids themselves.

"Lieut. Governor REED, Hon. Mr. BROOKS, of Princeton, Hon. Mr. LEONARD, of Norton, Hon. J. C. GAY, Messrs. BUCKMINSTER of the Ploughman, BARTLETT, of the Cultivator, and other gentlemen, took part in the discussion.

"At the succeeding meeting, Mr. TESCHEMACHER said that the vast and almost inexhaustible subject of manures had always united itself in his mind with three great considerations.

"1st. On the nature of the crops to be raised.

"2d. On the nature of the soil from which these crops were to be obtained.

"3d. And the most important one,—the nature and application of the manure itself. He should be obliged to condense into a brief form what he had to say on all these heads. Every one knew if clover was wanted, a large quantity of lime was wanted; for tobacco, potash or soda.

"In England, after many years cultivation of wheat, all the cow-yard manure that could be heaped on the ground would not raise any more until bone dust was added, and with this many acres hitherto considered barren, had given excellent crops. The size and quality of turnips had been found to be much benefitted by the use of the soluble phosphate of lime.

"One question then is, what does the crop we require abstract from the soil during its growth and maturity? The question is answered by the various analyses of the crops which are now found in every agricultural treatise. But another and much more important question now arises; it is this:

"What part of the ingredient puts more bone and muscle into the animals which feed on them, and can we by particular measures increase in these crops the quantity of their ingredients? The first part of this question has been answered by Liebig's last treatise. We knew before Liebig was born that the bones of animals were chiefly formed of the phosphate of lime, but we did not know that the phosphates of other alkalies formed considerable part of the muscle; this he has satisfactorily proved. In the lime district of Switzerland the cattle are much larger than where lime is scarce in the soil; and the great test of the quality of a crop is by its nutritious action on the animal, more than by its appearance or even weight; now it is evident that by offering as food to these crops a manure abundantly supplied with these ingredients, *combined with others ensuring a luxuriant growth*, we enable them to obtain a maximum thereof. My experience shows in the same weight of grain a difference of thirty per cent. in their ingredients, dependent on the difference of the manure; hence the consideration in the nature of the crops is of much interest. On the nature of the soil,—all soils are composed chiefly of sand, (silica) clay, (alumina) lime, magnesia, some organic matters as sources of carbonic acid, and a few oxids of the metals.

"Sand (silica) is chiefly of use to strengthen and stiffen the stems; for this purpose it must be dissolved by an alkali, (potash or soda.) This is usually found in clay, which as an ingredient of the soil or of the compost heap, is invaluable, although it never enters into the organization of the plant.

"When the chemist analyzes a mineral containing alumina, it is almost impossible for him to wash it free from the alkaline substances which he has used in his analysis; it grasps and retains these with the most invincible obstinacy, as clay in its natural state is always combined with small portions of silica and potash or soda.

"The president has spoken highly of charcoal, but by no means too much so, as an absorbent of the useful part of manure, ammonia. I have experimented many years with this substance, in various ways, and can amply confirm all he has said. Clay, however, I think if possible more retentive than charcoal, certainly more so as regards potash and soda, and may be had where charcoal is hardly to be procured. Clay, then, well pulverized by frost, is a most valuable addition to the compost heap; and a soil containing a fair proportion of clay may by manuring be rendered the most permanently rich of any.

"A light soil allows the valuable salts of the manure easily leached through by heavy rains, and one with too much clay does not permit them to mix freely, so that the roots of the crops can get access to their nourishment.

"The farmer, who studies the nature of his soil, will, while manuring liberally, be able to manure much more economically, than one who knows nothing on the subject. It is probable that the great differences of opinion which exist in the use of lime and plaster, have arisen chiefly from ignorance on this subject.

"I have not time to dwell on the third part of

this subject, but will state that in the Isle of Thanet, on the River Thames, where much seed wheat is grown, and where seeds of vegetables and herbs are grown to a large extent, the compost heaps are formed as follows: three or four inches of pretty good loam and turf, then six or eight inches of seaweed brought up from the beach in the immediate vicinity; then six or eight inches farm-yard manure, then loam, and so on, until the heap is several feet high. This is left twelve months to decompose; the grains raised are beautiful, large, plump and heavy; now here the ingredients are clayey loam to absorb. Seaweed contains soda, and a good proportion of the phosphates. The barn-yard manure, besides its soluble salts, contains ammonia; and the solid parts are by fermentation converted into charcoal and humus, which absorb the ammonia and preserve it for the use of the crop. Here then is not only every ingredient the plant requires, but also the store-house of alumina and charcoal, from which it extracts its food as wanted.

"I remember a discussion on the subject of whether manure was better used in a green state or after it had been kept for a year or more, and had become a black saponaceous mass. The question appeared to be settled in favor of this latter state, and this agrees with my own experience. If a manure heap be fermented under a good cover, it is converted into a black carbonaceous mass, containing nearly all the ammonia condensed in its pores, and is a most powerful manure."

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Hints from the South.—If your correspondents read as much of horticulture, &c., as they do of other matters, they would find much that they esteem to be quite new, to be really quite old. A reverend gentleman from the state of New-York,—one as fond of fruits and flowers as any one who delights to aid others,—the Rev. A. B. Lawrence, now in Louisville, Ky., instructed me in the art of *budding with terminal buds* in the summer of '44 or '45, and told me, I think, that he had been taught it long, long ago in New-York state.

I see some ready hand is giving a cut backwards at somebody. All I have to say about it, is,—go ahead. I have seen a letter from one man, who was "immensely superior" to all other nurseries; and as to accuracy, why, Old Master could not hold a candle to him, for he did sometimes make a mistake; see "Curious Pomonal Freak," page 292, where a Russet grew, by mistake, instead of a Greening. I tell you, there are some folks who need a severe rasping down, and I hope "Old Digger" will do it. I have been cultivating a few plum trees from the north, (price 50 centh each,) for 15 years or over, and, as yet, have only seen a few hard things, which would make a pig squeal to taste them, and cause crab apples, cranberries and vinegar to blush for sweetness! But in sober earnest, I think I can point to hundreds of dollars, swindled out of a small part of this country.

Please solicit "An Old Digger" to continue his notes. I love that sort of digging; and assure you, that an article in each number like that, will aid the circulation of your paper more than two and forty sort of advertise-communications, from the greatest grower of strawberries, from the land of charlatanry. Many of us need plain, straight-forward remarks; as—"Never work your ground in wet weather if you can avoid it; as it makes it clod-like and compact, by forcing the air out." And—"Don't be afraid to clip hedges, or cut back young trees, when you are planting them." Such compact advice is worth more than a dozen catalogues of forty thousand kinds of fruit, &c.

There are many of us, "outside Barbarians," who would like to see you continue your notes about green-houses. We want practical information. I have been a reader of flower gardens and orchard directories, and all that matter, for years; and, save Mr. Loudon, I never could get hold of anything but what was too high learned. Foreign works are quoted, visits to very extensive green-houses—but stop, I am striking back handed; and that I leave to "An Old Digger." I am sincerely your friend, *A Cynic, in Miss. Feb.*, 1849.

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Severe Winter.—The past winter has been one of remarkable severity, the temperature of part of the month of February having been lower throughout the middle and eastern states, than for 13 years previously.

No winter since 1836 has been so severe upon half-hardy trees and plants. A considerable number of those which usually bear the winters here without suffering the least injury, have lost a good part of their last season's growth, and in some parts of the country even plum and peach trees have suffered much by the sudden thawing of the bark after severe frost, causing it to split open, breaking the sap vessels, killing the trees.

North of us, and in New-England, we learn that the germ of the peach bud is destroyed, so that there will be no crop of peaches in those districts this season. Indeed, we learn from a friend near Boston, that the blossom buds of the cherry also show, on being cut across, the dark centre which tells that they also have been injured by the excessive cold. The mercury at Boston fell, we understand, to thirteen degrees below zero. Twelve degrees below 0 is sufficient to kill the heart of the peach blossom buds. In New-Jersey and Pennsylvania we believe the peach crop is uninjured.

In our own garden we find only about one bud in ten of peaches and apricots destroyed,—the remainder are sound and good; cherries are not at all injured. The mercury with us sunk to 10 degrees below 0. In some gardens within a few miles of us, however, in colder sites, the buds are nearly all killed.

We are glad to find that those two fine new

shrubs from China, which form so great an acquisition to our gardens,—the double Japan Spireæ (*Spiræa prunifolia pl.*,) and the Chinese Wiegela, (*Wigelia rosea*,) have both stood the winter in the open border without the slightest protection.

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SEEDS AND GRAFTS BY MAIL.—A petition is circulating in the state of Maine praying Congress for such a modification of the post office laws as will enable those persons who are engaged in horticultural pursuits, or others, to transmit by mail *seeds*, *grafts*, and such other horticultural objects as may without inconvenience be forwarded in this manner, at a rate of postage not exceeding that of newspapers, provided they be in packages of not more than two ounces. It is evident that public good would be promoted by the proposed amendment, as it would present an opportunity for testing plants and fruits, useful for cultivation, in all soils and climates. We hope to see a petition drawn up and circulated in this state. *F. W. P., Westchester Co., N. Y., March* 9, 1849.

This movement was, we think, first commenced by the Cincinnati Hort. Soc. But nothing was effected during the last session of Congress. We should be glad to see petitions sent in from all the horticultural societies next winter—as no doubt a modification of the postage laws will take place at the next session of Congress. In Great Britain seeds, grafts, and small plants are sent by mail to the great advantage and convenience of the whole kingdom, and there is no reason why the people should not give cultivators the same privilege here, since it would so manifestly be for the public good.—ED.

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ANSWERS TO CORRESPONDENTS.

GRAPES. *W. H. S.*, (Toledo, O.) The Black Hamburgh is *not* hardy in this climate, and requires covering. The Lenoir has fruited two years with us, and promises well—but we cannot speak of its merits for culture on a large scale. It is quite hardy, and is a good, small grape.

FLOWERING PLANTS. *An Amateur*, (N. York.) "*Beauty Supreme*" is the finest pink verbena yet grown in this country; it flowers abundantly, and forms fine masses. "Tom Thumb" is much superior to the old scarlet geranium for masses, as its color is very vivid scarlet, and the plant, though not absolutely dwarf, as its name implies, is of compact habit, with good foliage. Tuberoses will flower abundantly if you plant the roots in pots at once, and start them in a frame or hot-bed, and turn them out in the border about the 1st of June. —*William*, (New-York.) You will find the plants you wish at Thorburn's. See advertisement.

FRUIT TREE MANURES. *C. S.*, (Newport, N. Y.,) The composts recommended in our leader of last month are intended not only for top-dressings, but also for enriching the soil when planting the trees. A barrow-full may be used to each hole three or four feet in diameter. Mix it thoroughly with the soil.

LIME. *An Inquirer*, (New-Haven.) Never mix fresh slaked lime with fresh animal manure unless you wish to destroy part of the value of the latter. If you wish to apply both lime and manure, spread the manure and turn it under with a spade, and then apply lime as a *top-dressing*. It will find its way downward in the soil as fast as the tree requires it—and not so fast as to act upon the manure injuriously. Old, or *mild lime* may be used along with manure.

LAWNS. *B.*, (Philadelphia.) If you are not in haste about your lawn, and economy is the object, a bushel of seed per acre will answer. But it will require a year's growth to give a close turf, which might be obtained by more plentiful sowing, in two months. *Red-top*, (the "bent grass" of New-England,) makes the best lawn for this climate, and it makes a more beautiful lawn alone than with white clover—though the latter gives immediate effect, and helps to preserve the verdure in a very dry soil or season. Make the surface as smooth as possible before sowing the seed, and roll it with a heavy roller directly after. If you had only a small surface to sow, instead of several acres, we should recommend you to use from two to four bushels of seed per acre.

PRUNING. *A Canada Subscriber*. You may prune your hardy grape vines now. We have tried the experiment repeatedly of late, and have never been able to discover that *bleeding* injures spring-pruned vines in the least. Prune back the side shoots so as to leave only one or at most two buds of the last year's growth.

GRAFTING. *C. S.* You may succeed perfectly well in grafting the fine plums on your wild plum stocks, but it will not change the habit of the improved sorts any further than adaptation to the soil is concerned. They will be just as liable to the attacks of the curculio.

SHRUBS.—*A Northern Reader*. You can plant no prettier shrub for masses than the upright (Tartarian) honeysuckles. They are beautiful in leaf, blossom, or berry, from April to December. The "Dutchman's pipe" is a perfectly hardy, shrubby vine, and will grow in any good garden soil. It will cover a trellis twenty feet high. The European holly will stand the winters north of New-York only with protection from the *sun* in winter. Tree pœonias are quite hardy here, but must be covered in winter north of Albany.

VEGETABLES. *A Tyro*, (Trenton, N. J.) The red-solid celery is hardier and keeps much better than the white, but is not so tender if eaten raw. There is no beet comparable to the *Bassano*, either for earliness or flavor. There is no melon for general culture superior in all respects to the small netted citron.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated monthly meeting of this society occurred on Tuesday evening, March 29th, 1849,—the President in the chair.

The display of objects on this occasion far exceeded the usual monthly attractions, and was witnessed by a throng of the elite of the city, who appeared highly delighted with the spectacle. The president contributed, as is his wont, largely from his fine collection; and, as objects of the greatest interest, might be noticed his contribution of strawberries, comprising forty pots, of the following varieties: Hovey's and Keene's Seedlings, Buist's Prize, Buist's Early May, British Queen, Columbus, and Ohio Mammoth, in full cror, ripe, and temptingly luscious,—a credit to his gardener; also, an extensive collection of plants, in full bloom, among which was a new plant, sent from Mexico by Gen. Patterson, which does not appear to have been described; air plants, Rhododendrons, Camellias, Pelargoniums, etc. etc.; and a table of seedlings; twenty-four pots of Cinerarias; sixteen of Petunias; and twelve of Pansies: a beautiful design of cut flowers, of a pyramidal form, resting on a moss pedestal; also a handsome basket of select flowers.

Mr. Dundas's gardener presented a number of magnificent specimens of plants,—two very large Azaleas, white and purple, in profuse bloom, and fine Rhododendrons, from which were suspended several air plants; also a large moss vase of choice cut flowers.

Robert Buist exhibited a select collection of plants in flower,—Azaleas, Cineraria Seedlings of much beauty; four Seedling Rhododendrons, etc. etc.; and Porphrycoma lanceolata, Forenia asiatica, and Spiræa Reevesii, of recent introduction; Wigelia rosea, Spiræa prunifolia, fl. pl.; Barnadesia rosea, *new*, and for the first time exhibited.

Peter Raabe, a fine table of Camellias, Azaleas, etc.: and three large pots of Hyacinths, grown in moss, in cone form, one of which contained more than one hundred bulbs in bloom, of all varieties of hue.

F. Lennig's gardener exhibited fine Camellias, Acacias, etc. etc.

John Lamberts' gardener, a choice collection of Camellias, Azaleas, Roses, etc.; and a handsome basket of cut flowers.

James McDowell, gardener to Miss Gratz, a collection of plants.

Peter Mackenzie exhibited a stand of cut Camellias, consisting of thirty-five of the most select varieties.

James Ritchie, cut Camellias; one of which was a new and distinct white variety, of fine form,—a seedling named Pierceii.

Of fruit, Thomas Hancock exhibited St. Germain pears and apples. John Perkins, five varieties of apples; and Joseph J. Hatch, apples—Wood's Greening.

Of vegetables, a fine display from the president's,—a collection raised under glass, comprising potatoes, cucumbers, mushrooms, asparagus, lettuce, etc. etc.

Pierce Butler's gardener, a great display of lettuce, radishes and cauliflowers.

Miss Gratz' gardener, a fine collection of forced specimens.

The committee for awarding premiums reported the following: The committee on plants and flowers beg leave to report that they found great difficulty in awarding the premiums; there being so many fine specimens submitted.

They however have determined upon the following: For the best three Rhododendrons, to James Bisset, gardener to James Dundas. For the best three Azaleas, to James Bisset; for the second best do., to Maurice Finn, gardener to John Lambert: for the third best, to B. Daniels, gardener to C. Cope. For the best three hot-house plants, to James Bisset; for the second best, to B. Daniels. For the best three green-house plants, to B. Daniels; for the second best, to David Scott, gardener to Frederick Lennig. For the best collection of plants in pots, to B. Daniels; for the second best, to Maurice Finn; for the third best to Peter Raabe. For the best design of cut flowers, to James Bisset; for the second best, to B. Daniels. For the best basket of cut flowers, to Maurice Finn; for the second best basket, to B. Daniels. Special premiums of one dollar each, for collections of plants, to James Bisset, James McDowell and Peter Raabe; also, for a stand of Hyacinths, to Peter Raabe.

The committee notice a fine display of Camellia flowers, from the green-house of Peter Mackenzie. Also, a fine display of plants from Robert Buist; many of them new, and not for competition; and a beautiful specimen of the Rhododendron Marryatii; and a fine display of Petunias and Cinerarias, from the collection of Mr. Cope. Also a cut specimen of a Camellia J. Pierceii,—a new variety, shown by James Ritchie.

The committee on fruit report that they have awarded the following premiums, viz: For the best pears, to Thomas Hancock. For the best apples, five varieties, to John Perkins. And special premiums, of one dollar each, to Thomas Hancock and John Perkins. And one of five dollars, for a most splendid display of strawberries, all of the best varieties, in fine order and condition, displaying the plant, flower and fruit in the greatest perfection, to B. Daniels, gardener to the president.

The committee on vegetables report that they have awarded the following premiums, viz: For the best and most interesting display, by market gardeners, to Anthony Felten; for the second best do., to the same. For the best, by amateurs, to the gardener of Pierce Butler; for the second best do., to B. Daniels, gardener to C. Cope; for the third best do., to J. McDonald, gardener to Miss Gratz.

Dr. Herman Wendell, of Albany, presented papers of the seeds of a new Chinese vegetable, and of the Chinese oil plant, through the hands of Dr. Brinckle.

Ordered, That the thanks of the society be tendered therefor.

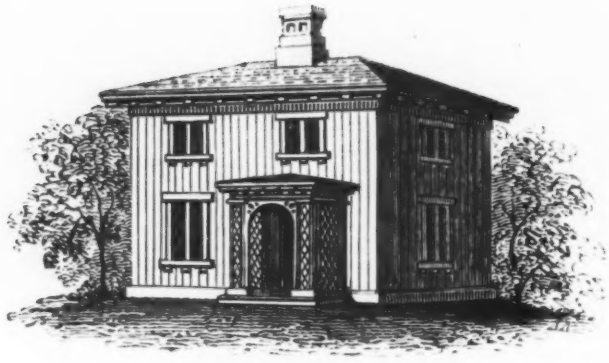
Messrs. Isaac M. Moss & Bro., the publishers, presented a copy of Walter Elder's "Cottage Garden of America." On motion,

Ordered, That the thanks of the society be tendered to the donors.

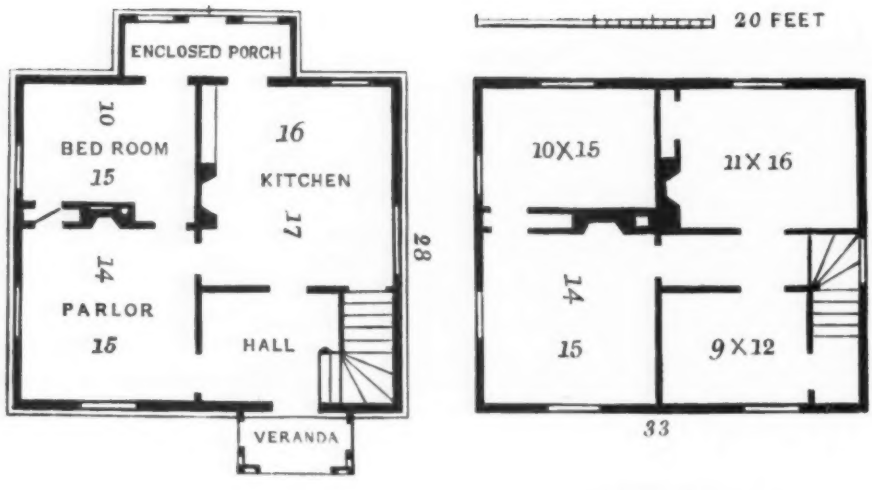
The secretary submitted proposals for publishing, by subscription, the memorials of John Bartram and Humphrey Marshall, with notes and biographical sketches, by Wm. Darlington, M. D.; those of Jno. Bartram being dedicated to our society. On motion,

Ordered, That the work be recommended to the favorable consideration of the members of the society. Adjourned.

THOS. P. JAMES,
Rec. Secretary.



A SUBURBAN COTTAGE.



FIRST FLOOR.

CHAMBER FLOOR.

Hort: May. 1849.